

Rpt. 4.

Sta. No. 33639  
Hull No. 51916

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

25 FEB 1943

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of **HULL**  
 No. in Survey held at Reg. Book Date, First Survey 18 9 42 Last Survey 6 2 19 43  
 (Number of Visits 24)  
 on the **H.M. TRAWLER GRUINARD** Tons { Gross 453  
 Net 146  
 Built at **SUNDERLAND** By whom built **J. CROWN** Yard No. **205** When built 1943  
 Engines made at **HULL** By whom made **Chas. D. Holmes & Co.** Engine No. **1644** When made 1943  
 Boilers made at **W. HARTLEPOOL** By whom made **Central Marine Eng. Wk.** Boiler No. **R.356** When made  
 Registered Horse Power Owners **THE ADMIRALTY** Port belonging to  
 Nom. Horse Power as per Rule **156** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**  
 Trade for which vessel is intended

ENGINES, &c.—Description of Engines **Triple Expansion** Revs. per minute **160**  
 Dia. of Cylinders **13 1/2" x 23" x 38"** Length of Stroke **27"** No. of Cylinders **3** No. of Cranks **3**  
 Crank shaft, dia. of journals as per Rule **7 1/2"** as fitted **7 3/8"** Crank pin dia. **7 7/8"** Mid. length breadth — Thickness parallel to axis **4 13/16"**  
 as fitted **7 3/8"** Crank webs — Mid. length thickness — shrunk Thickness around eye-hole **3 15/16"**  
 Intermediate Shafts, diameter as per Rule — as fitted — Thrust shaft, diameter at collars as per Rule — as fitted —  
 Tube Shafts, diameter as per Rule — as fitted — Screw Shaft, diameter as per Rule — as fitted — Is the { tube } shaft fitted with a continuous liner {  
 as fitted — { screw }  
 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  
 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 lapped or protected between the liners. Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 at — If so, state type. 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. **2** Diameter **2 1/2"** Stroke **15"** Can one be overhauled while the other is at work **Yes**  
 Bilge Pumps worked from the Main Engines, No. **2** Diameter **2 1/2"** Stroke **15"** Can one be overhauled while the other is at work **Yes**  
 Feed { No. and size Pumps connected to the { No. and size  
 Pumps { 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, connected 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 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.  
 FOR CHARLES D. HOLMES & CO., LTD.

Manufacturer.



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Lloyd's Register  
Foundation

009321-009330-0089



Dates of Survey while building  
During progress of work in shops - - { 1942. Sept. 18. 25. Oct. 1. 2. 5. 6. 8. 9. 13. 16. 19. 24. 30. Nov. 5. 6. 17. 19. 23. 30. Dec. 1. 7.  
1943. Jan. 20. Feb. 2. 6.  
During erection on board vessel - - - {  
Total No. of visits 24.

Dates of Examination of principal parts - Cylinders *Supplied by Walker Bros and taken at Wigan.* Slides 30/10/42 Covers as Cylinders.  
Pistons 30/10/42 Piston Rods 9/10/42 Connecting rods 9/10/42  
Crank shaft 5/10/42 Thrust shaft Intermediate shafts  
Tube shaft Screw shaft Propeller  
Stern tube 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 *F. 1/2" steel* *Emp 998 F.W. 30/7/42 Journal 999 F.W. 9/7/42* Identification Mark *Pins 35 F.W. 30-7-42* Thrust shaft material Identification Mark  
Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark  
Screw shaft, material 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)  
The Machinery of the Vessel has been constructed in accordance with the approved Admiralty plans, the Specification, and the Society's Rules of tested material supplied by firms approved by the Society.  
The Workmanship and materials are good.

The amount of Entry Fee ... £ : :  
Special ... (Part) ... £ 45 : - :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 25 FEB 1943  
When received, 19

J. Philo  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
Assigned See Std. 2E 33639