

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 25-9-42. When handed in at Local Office 8 DEC 1942. Port of HULL. Date, First Survey 29. 5. 42. Last Survey 9. 11. 1942. (Number of Visits 43.)

on the H.M.T. **GWEAL**
Built at BEVERLEY By whom built Cook Weller-Gemmel & Co Yard No. 698. When built 1942
Engines made at HULL By whom made Chas. D. Holmes & Co Engine No. 1623. When made "
Boilers made at HULL By whom made D.O. Boiler No. 1612. 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 Government Service.

ENGINES, &c.—Description of Engines Triple Expansion Contract Revs. per minute 160.
Dia. of Cylinders 13 1/2", 23", 38". Length of Stroke 27". No. of Cylinders 3. No. of Cranks 3.
Crank shaft, dia. of journals as per Rule 7.5". as fitted 7 3/8". Crank pin dia. 7 7/8". Mid. length breadth — Thickness parallel to axis 4 13/16".
Intermediate Shafts, diameter as per Rule 7.15". as fitted 7 1/4". Crank webs Mid. length thickness — Thickness around eye-hole 3 15/16".
Thrust shaft, diameter at collars as per Rule — 7.5". as fitted None 7 7/8".
Tube Shafts, diameter as per Rule — as fitted — Screw Shaft, diameter as per Rule 8.2". as fitted 8 1/4". Is the screw 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 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 —
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 shaft Yes. If so, state type NEWARK.

Propeller, dia. 105" Pitch 9'-4". No. of Blades 3. Material Cl. whether Moveable Solid Total Developed Surface 30 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 Pumps No. and size One 4" x 6" x 12" Weir. Pumps connected to the Main Bilge Line No. and size One 6" x 3 1/2" x 15" Weir. How driven Independent Steam. How driven Independent Steam.

Ballast Pumps, No. and size None. Lubricating Oil Pumps, including Spare Pump, No. and size None.
Are two independent means arranged for circulating water through the Oil Cooler None. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room Eng Room 2 @ 2" Dia. One @ 3 1/2" Dia. In Hold, &c. One @ 2" Dia. in each of the following:—Fore Peak, Chain Locker, ASDIC Space, Magazine, Spirit Room, Bunker, Shaft Space and After Peak.
Main Water Circulating Pump Direct Bilge Suctions, No. and size One @ 5". Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One @ 3 1/2" (included above). 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 Sea Connections fitted direct on the skin of the ship Yes. Are they fitted with Valves or Cocks Yes.
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 at W.L.
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 No.
What Pipes pass through the bunkers Feed and suction. How are they protected Wood casing.
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 Space watertight Yes. Is it fitted with a watertight door Accessed from flat above.

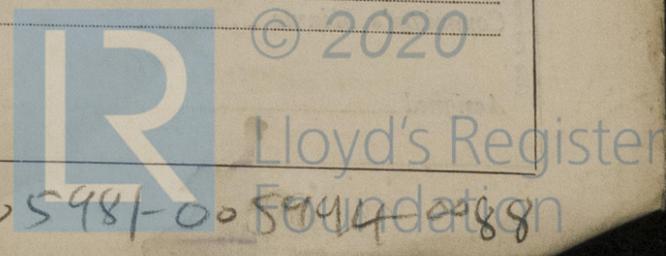
MAIN BOILERS, &c.—(Letter for record 5.) Total Heating Surface of Boilers 2650 sq. ft.
Which Boilers are fitted with Forced Draft All. Which Boilers are fitted with Superheaters None.
No. and Description of Boilers One S.B. Working Pressure 200 lb/10".
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.
IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? No.

Can the donkey boiler be used for domestic purposes only —
PLANS. Are approved plans forwarded herewith for Shafting 17-7-39. Main Boilers 17-7-39. Auxiliary Boilers None. Donkey Boilers None.
(If not state date of approval)
Superheaters None. General Pumping Arrangements 17-10-39. Oil fuel Burning Piping Arrangements None.

SPARE GEAR.
Has the spare gear required by the Rules been supplied Yes.
State the principal additional spare gear supplied See attached list.

The foregoing is a correct description.
FOR CHARLES D. HOLMES & CO., LTD.

Manufacturer.



005981-00

GWEAL

During progress of work in shops - - 1942. May 29. June 6, 12, July 10, 17, 25, 27. Aug. 1, 7, 8, 13, 14, 15, 17, 18, 21, 24, 28.
 During erection on board vessel - - Sept. 1, 7, 9, 16, 21, 22, 23, 28, 29. Oct. 1, 25, 6, 7, 13, 14, 19, 21, 26, 27, 28, 30. Nov. 3, 4, 9.
 Total No. of visits 43.

Dates of Examination of principal parts - Cylinders 13/8/42 14/8/42 8/8/42 Slides 28-8-42 Covers 13/8/42 14/8/42 8/8/42
 Pistons 1/8/42 28/8/42 Piston Rods 21/8/42 Connecting rods 28/8/42
 Crank shaft 15/8/42 Thrust shaft 28/9/42 Intermediate shafts 28/9/42
 Tube shaft ✓ Screw shaft 12/6/42 Propeller 12/6/42
 Stern tube 12/6/42 Engine and boiler seatings 12/6/42 Engines holding down bolts 28.9.42
 Completion of fitting sea connections 12/6/42 Boilers fixed 29/9/42 Engines tried under steam 27/10/42 4/11/42
 Completion of pumping arrangements 27/10/42 Main boiler safety valves adjusted 27/10/42 Thickness of adjusting washers P 3/8" S 7/16"
 Crank shaft material Steel Coupling 8637. Journal 8638. Pin 8639 Identification Mark CP 30/6/42 Thrust shaft material Steel 1648 JS. 27. 7. 42. 608
 Intermediate shafts, material Steel Identification Marks A. 1648 JS. 18/8/42. Tube shaft, material Identification Mark JH 2.2.42
 Screw shaft, material Steel Identification Mark AE 29/5/42 Steam Pipes, material Steel Test pressure 600 lbs. Date of Test 5/10/42

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 the use of oil as fuel been complied with.
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. no 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. BERN

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 Machinery and auxiliaries have been fitted aboard and when tried under steam at as near full power as practicable in the basin were found satisfactory in every respect.
 The Vessel is eligible, in our opinion, when classed, to have the records of *LMC. 1842. and O.G. and the notation T3cy 13 3/4", 23", 38" - 27".
 156 N.H.P. 200 lb 1 s.b. 3 cf. G.S. 63. H.S. 2650 F.P.

[The forging reports of above vessel are common to another one and will be forwarded with that ship's reports.]

The amount of Entry Fee ... £ 75 :
 Special ... £ :
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) £ :
 When applied for, 8 DEC 1942
 When received, 19

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

Committee's Minute TUE 29 DEC 1942
 Assigned +dmb 11.42
 22.04

