Capt. 4.

No. 51638.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 17 JUN 1942

Date of writing Report 6-4-42 19 When handed in at Local Office 15 JUN 1942 Port of HULL.

No. in Reg. Book. Survey held at HULL. Date, First Survey 12.9.1941 Last Survey 13.5.1942 (Number of Visits 41.)

Built at SELBY. on the H.M.T. WAITING. Tons Gross 387 Net 127

Engines made at HULL. By whom built Cochrane & Sons Ld Yard No. 1240 When built 1942-5

Boilers made at HULL. By whom made Chas. D. Holmes Ld Engine No. 1609. When made 1 do

Registered Horse Power By whom made Chas. D. Holmes Ld Boiler No. 1609. When made do

Com. Horse Power as per Rule 125 Owners THE ADMIRALTY. Port belonging to

Trade for which Vessel is intended Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

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ENGINES, &c.—Description of Engines Triple Expansion. Revs. per minute 115.

Dia. of Cylinders 13½", 24", 39". Length of Stroke 27". No. of Cylinders 3. No. of Cranks 3.

Crank shaft, dia. of journals as per Rule 7.6. as fitted 8". Crank pin dia. 8" Crank webs Mid. length breadth — Mid. length thickness — shrunk Thickness parallel to axis 5" Thickness around eye-hole 39/16".

Intermediate Shafts, diameter as per Rule 7.3". as fitted 7¾" **Thrust shaft**, diameter at collars as per Rule 7.6. as fitted 8"

Tube Shafts, diameter as per Rule as fitted None **Screw Shaft**, diameter as per Rule 8.152. as fitted 8½" Is the {tube / screw} shaft fitted with a continuous liner Yes.

Bronze Liners, thickness in way of bushes as per Rule 9/16". as fitted 19/32" Thickness between bushes as per Rule as fitted 11/32" 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 One length.

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

Shaft No. If so, state type — Length of Bearing in **Stern Bush** next to and supporting propeller 35 9/16".

Propeller, dia. 10'-3" Pitch 10'-9". No. of Blades 4. Material C.I. whether Moveable Solid Total Developed Surface 39½ sq. feet

Feed Pumps worked from the **Main Engines**, No. One Diameter 3" Stroke 15" Can one be overhauled while the other is at work ✓

Bilge Pumps worked from the **Main Engines**, No. One Diameter 3" Stroke 15" Can one be overhauled while the other is at work ✓

Feed Pumps { No. and size One 6"×4¼"×6" Duplex / How driven Independent Steam } **Pumps** connected to the **Main Bilge Line** { No. and size 6"×4¼"×6" Duplex, 3" Ejector / How driven Independent Steam, Steam } M.E. Pumps.

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 2 @ 2" Dia + one 3" Ejector (see below). In Holds, &c. One @ 2" Dia in each of the following:—

In Pump Room — Fore Ballast Space: ASDIC Room: After Ballast Space: Magazine, Magazine Lobby. Spirit Room.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 6". **Independent Power Pump Direct Suctions** to the Engine Room Bilges,

No. and size One 3" Steam Ejector. 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 & Cocks Yes + Bilge Ejector with Steam

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 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 pass through the bunkers Fore hold suctions How are they protected Wood casing.

What pipes pass through the deep tanks None 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 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 None Is it fitted with a watertight door — worked from —

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 1873 ☐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 210 lbs 10"

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.

IS A DONKEY BOILER FITTED? No. 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 13-8-41 Main Boilers 13-8-41 Auxiliary Boilers None Donkey Boilers None
(If not state date of approval)

Superheaters None. General Pumping Arrangements 16-6-41 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.

W. R. Evans

Manufacturer.

WHITING.

Dates of Survey while building	During progress of work in shops	1941. Sept 22. Oct 2. Nov. 21. 1942 Jan 10. 20 Feb. 6. 9. 18. 19. 20. 23. 26. 27. Mar. 6. 12. 13. 17. 18. 19. Mar. 21. 26. 27. 30 Apr. 3. & 8.
	During erection on board vessel	1941 Oct 4. 7. 1942 Apl 14. 16. 17. 18. 20 24 28 May. 1. 5. 6. 11. 13
	Total No. of visits	41.

Dates of Examination of principal parts—Cylinders 17/3/42. 18/3/42. 20/3/42 Slides 3/4/42. Covers 17/3/42. 18/3/42. 20/3/42

Pistons 3/4/42. 13/3/42. 27/3/42. Piston Rods 6/2/42 Connecting rods 20/3/42.

Crank shaft 19/2/42 Thrust shaft 14. 4. 42. Intermediate shafts 14. 4. 42.

Tube shaft ✓ Screw shaft 4. 10. 41 Propeller 17. 10. 41

Stern tube 4. 10. 41 Engine and boiler seatings 4. 10. 41. Engines holding down bolts 14. 4. 42

Completion of fitting sea connections 17. 10. 41

Completion of pumping arrangements 28. 4. 42. Boilers fixed 14. 4. 42. Engines tried under steam 6. 5. 42.

Main boiler safety valves adjusted 28. 4. 42 Thickness of adjusting washers Both 7/16"

Crank shaft material M.S. Identification Mark Coupling 6078. Journal 6079. AEG 16/9/41. Pin 6335. AEG 4/11/41. Thrust shaft material MS Identification Mark 1624. 21/11/41 JS. 6076, 16.9.41 AEG.

Intermediate shafts, material M.S. Identification Marks 6082 AEG 16/9/41 1624 JS. 6.3.42 Tube shaft, material None. Identification Mark —

Screw shaft, material M.S. Identification Mark 6080 AEG 16.9.41. 2.10.41 1624 JS. Steam Pipes, material Steel Test pressure 630. Date of Test 22-7-41

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 No

Is this machinery duplicate of a previous case Yes If so, state name of vessel BONITO.

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

The Machinery of this Vessel, has been constructed under Special Survey in accordance with approved plans, the Rules, Specification, and Admiralty requirements of good materials & workmanship.

The Machinery has been fitted aboard under special Survey and when tried under steam at as near full power as practicable was found satisfactory in every respect.

It is eligible, in our opinion to have the records ✠ LMC 5. 42. C.L. and the notation of T. 3 Cy. 13½", 24", 39" — 27". 210 lb/□". NHP 125. G.S. 50. H.S. 1873. F.D.

The amount of Entry Fee ... £ : :
Special ... ... £ 62 : 0 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for, 15 JUN 1942
When received, 19

W. S. Shields & J. Kitson(?) Engineer Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to

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

Committee's Minute FRI. 19 JUN 1942

Assigned ✠ LMC 5.42 FD, CL