

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19 12-7-43 When handed in at Local Office 19 12-7-43 Port of HULL
 No. in Survey held at HULL Date, First Survey 4-12-43 Last Survey 30 8 19 44
 Reg. Book J. 2743 (Number of Visits 52) Tons (Gross 581.39 Net 180.44)
 on the H.M. Trawler GUARDSMAN
 Built at BEVERLEY By whom built Cook, Weller & Gemmell Ltd Yard No. 732 When built 1944
 Engines made at HULL By whom made Chas. I. Holme Ltd Engine No. 1681 When made 1944
 Boilers made at HULL By whom made Chas. I. Holme Ltd Boiler No. 1681 When made 1944
 Registered Horse Power 165 Owners The Admiralty Port belonging to ✓
 Nom. Horse Power as per Rule 165 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES
 Trade for which vessel is intended "For Government Service"

ENGINES, &c.—Description of Engines Triple Expansion CONTACT Revs. per minute 123
 Dia. of Cylinders 15" 25" 42" Length of Stroke 27 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 8.369 as fitted 8 1/2 Crank pin dia. 8 1/2 Mid. length breadth 16 1/8 Thickness parallel to axis 5 1/2
 Crank webs as fitted 8 1/2 Mid. length thickness 5 1/2 shrunk Thickness around eye-hole 3 13/16
 Intermediate Shafts, diameter as per Rule 7.941 as fitted 8 1/8 Thrust shaft, diameter at collars as per Rule 8.369 as fitted 8 1/2
 Tube Shafts, diameter as per Rule 8.864 as fitted 9" Is the tube shaft fitted with a continuous liner Yes
 Screw Shaft, diameter as per Rule 8.864 as fitted 9"
 Bronze Liners, thickness in way of bushes as per Rule .566 as fitted 19/32 Thickness between bushes as per Rule .311 as fitted 1/2 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 Continuous
 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 —
 Propeller, dia. 10'-9" Pitch 11'-0" No. of Blades 4 Material C.I. whether Moveable not Total Developed Surface 42 1/2 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 5/8 Stroke 16 Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 5/8 Stroke 16 Can one be overhauled while the other is at work Yes
 Feed Pumps { No. and size One 6" x 1 1/4" x 6" Duplex Pumps connected to the Main Bilge Line { No. and size One 4" x 5" x 6" Duplex
 How driven Steam How driven Steam (Also 1-3" Ejector)
 Ballast Pumps, No. and size One 4" x 5" x 6" Duplex 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 202" 103"
 In Pump Room — In Holds, &c. 1-2" each of following, magazine, gunner's store, spirit room, &c. stores & fo'rd hold and aft peak and ballast space.
 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" Bilge Ejector (Steam) 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 Both
 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 Fo'rd Suctions How are they protected plated
 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 ✓ Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2551 sq
 Which Boilers are fitted with Forced Draft Yes Which Boilers are fitted with Superheaters none
 No. and Description of Boilers One S.B. Working Pressure 225 lbs/sq
 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 19-8-42 Main Boilers 29-5-42 Auxiliary Boilers — Donkey Boilers —
 (If not state date of approval)

Superheaters — General Pumping Arrangements 21-7-42 Oil fuel Burning Piping Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied
 1 set piston rings steam and water for all auxiliaries
 Rings and springs for h.p and m.p pistons
 2 Eccentric rods and straps for main engines
 1 Plummer Block
 3 Main Engine by cylinders. Escape valve spring.

The foregoing is a correct description,
 FOR CHARLES I. HOLME & CO., LTD.

Manufacturer.



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Lloyd's Register Foundation
 004745-004754-0058

" GUARDSMAN. "

Dates of Survey while building

During progress of work in shops -- { 1943. Dec. 4. 17. ¹⁹⁴⁴ Jan. 29. Feb. 4. 11. 18. 23. 25. Mar. 6. 10. 14. 15. 20. 24. 31. Apr. 7. 18. 20. 21. 22. 24. 28. May 3. 5. 12. 19. 26. June 8. 9. 16. 23. 30. July 8. Aug 11.

During erection on board vessel --- { 1944 MAY 26. Jy 17, 24, 25, 27, 28. Aug 1, 10, 11, 14, 15, 16, 21, 22, 23, 27, 29, 30

Total No. of visits 52

Dates of Examination of principal parts

Cylinders 24/4/44. 20/4/44. 18/4/44. Slides 16/6/44. Covers 24/4/44. 20/4/44. 18/4/44.

Pistons 9/6/44. 26/5/44. Piston Rods 17/5/44. Connecting rods 12/5/44.

Crank shaft 7/4/44. Thrust shaft 23/2/44. Intermediate shafts 23/2/44.

Tube shaft --- Screw shaft 3/5/44. Propeller 17/7/44.

Stern tube 26/5/44. Engine and boiler seatings 17/7/44. Engines holding down bolts 24/7/44.

Completion of fitting sea connections 26/5/44.

Completion of pumping arrangements 27/8/44. Boilers fixed 24/7/44. Engines tried under steam 15/8/44. 27/8/44.

Main boiler safety valves adjusted 15/8/44. Thickness of adjusting washers P 1/32" S 3/8"

Crank shaft material F. 1. Steel Identification Mark 1941. CP. 3/2/43 Thrust shaft material F. 1. Steel Identification Mark 1939. CP. 19/1/44

Intermediate shaft material D° Identification Marks 1940. CP. 3/2/43 Tube shaft material --- Identification Mark

Screw shaft material D° Identification Mark 1938. CP. 22/4/43 Steam Pipes material Steel Test pressure 225 lb Date of Test 20/12/43.

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 H.M.T. Grenadier Hull Rpt No. 5204

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

The machinery of this vessel has been constructed in accordance with the approved Admiralty plans, the specification, and the Society's Rules of tested materials, 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. Satisfactory run trials also carried out. The vessel is eligible, in our opinion, when classed, to have the records of $\frac{1}{2}$ LMC 8,44 and T.S. (C.H.) and the Notation T. 3cy 15" - 25" - 42" - 27", 165 N.H.P. 225 lbs I.S.B. 3 cf 9S. 6H H.S. 2551 F.D.

The amount of Entry Fee ... £ 4 : 0 : 0

Special Class LMC ... £ 40 : 0 : 0

Donkey Boiler Fee ... £ 41 : 0 : 0

Travelling Expenses (if any) £ : : 19

When applied for, SEP 1944

When received, 19

W. Shields & J. Philomena
Engineer Surveyors to Lloyd's Register of Shipping.

ADMIRALTY
A/c rendered from London 20 OCT 1944

Committee's Minute ... TUES, 12 SEP 1944

Assigned ... +LMC 8,44 J.D. CL



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