

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 20 SEP 1944

Date of writing Report 19 25 SEP 1944 When handed in at Local Office 19 Port of HULL

No. in Survey held at HULL Date, First Survey 4.12.43 Last Survey 22.9.1944  
Reg. Book on the H.M. TRAWLER **HOME GUARD** (Number of Visits 51.) J2745 Tons { Gross 581.39 Net 180.44

Built at BEVERLEY By whom built Cook, Welton & Gemmell & Co. Yard No. 733 When built 1944

Engines made at HULL By whom made Chas. D. Holmes & Co. Engine No. 1682 When made

Boilers made at HULL By whom made Chas. D. Holmes & Co. Boiler No. 1682 When made

Registered Horse Power 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 Government Service

**ENGINES, &c.**—Description of Engines Triple Expansion Contract 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 8.37" 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 Mid. length thickness 5 1/2" shrunk Thickness around eye-hole 3 13/16"

Intermediate Shafts, diameter as per Rule 7.97" as fitted 8 1/8" Thrust shaft, diameter at collars as per Rule 8.30" as fitted 8 1/2"

Tube Shafts, diameter as per Rule NONE as fitted Screw Shaft, diameter as per Rule 8.867" as fitted 9" Is the { tube screw } shaft fitted with a continuous liner { Yes

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 shaft - no. If so, state type

Propeller, dia. 10'-9" Pitch 11'-0" No. of Blades 4 Material C.I. whether Moveable Solid Total Developed Surface 42 1/2' sq. feet Length of Bearing in Stern Bush next to and supporting propeller 42"

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 4 1/4" x 6" Duplex Pumps connected to the { No. and size One 7" x 5" x 6" Duplex How driven Independent Steam Main Bilge Line How driven Independent Steam, also 1-3" ejector steam

Ballast Pumps, No. and size One 7" x 5" x 6" Duplex 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" 1 @ 3" In Pump Room In Holds, &c. One 2 1/2" dia. in each of the following, magazine, gunners store, spirit room, D.C. stores & forward hold 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" 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 or Cocks Both 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 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 Ford 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 ft<sup>2</sup>

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 22.5 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 See attached list.

One set piston rings steam and for all auxiliaries.

Rings and springs for M.P. and L.P. pistons.

2 eccentric rods and strap for main engine

1 plummer Block

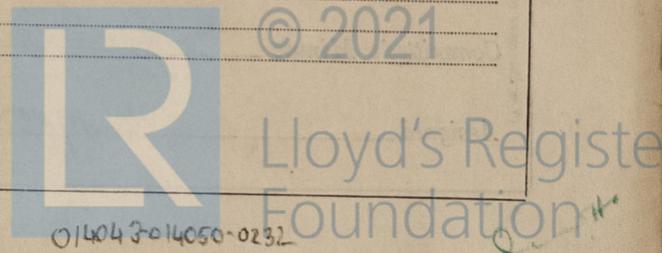
3 main engine cylinders escape valve springs.

The foregoing is a correct description.

FOR CHARLES D. HOLMES & CO., LTD

W.R. Evans

Manufacturer.



# HOME GUARD.

1944

During progress of work in shops -- { 1943. Dec. 4-8. Feb. 4-11-18-25-28. Mar. 6-14-21-24-31. Apr. 7-21-22-28. May 5-10-11-12-14-18-19-22-26.  
 June 8-9-16-23-30. July 8-13-28. Sept 1.  
 JUN 16

Dates of Survey while building { During erection on board vessel --- { 1944 / JULY 19, 24. AUG 15, 22, 25, 28, 31. SEP 5, 7, 8, 13, 14, 16, 19, 21, 22. X

Total No. of visits 51.

Dates of Examination of principal parts—Cylinders 18/5/44 11/5/44 Slides 16/6/44 Covers 18/5/44 11/5/44  
 Pistons 23/6/44 16/6/44 Piston Rods 9/6/44 Connecting rods 9/6/44  
 Crank shaft 10-5-44 Thrust shaft 24/3/44 Intermediate shafts 17/5/44  
 Tube shaft NONE Screw shaft 22/5/44 Propeller 15/8/44  
 Stern tube 16-6-44 Engine and boiler seatings 28/8/44 Engines holding down bolts 28/8/44  
 Completion of fitting sea connections 16-6-44  
 Completion of pumping arrangements 7/9/44 Boilers fixed 28/8/44 Engines tried under steam 7/9/44 19/9/44  
 Main boiler safety valves adjusted 7/9/44 Thickness of adjusting washers P 3/8" S 3/8"  
 Crank shaft material F.1. Steel Identification Mark 1976 CP 3/3/44 Thrust shaft material F.1. Steel Identification Mark 1974 CP 3/3/44  
 Intermediate shafts, material F.1. Steel Identification Marks 1975 CP 2/3/44 Tube shaft, material NONE Identification Mark ---  
 Screw shaft, material F.1. Steel Identification Mark 1973 CP 3-3-44 Steam Pipes, material Steel Test pressure 675 lb. Date of Test 31/8/44  
 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 "HMT Grenadier"

**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.

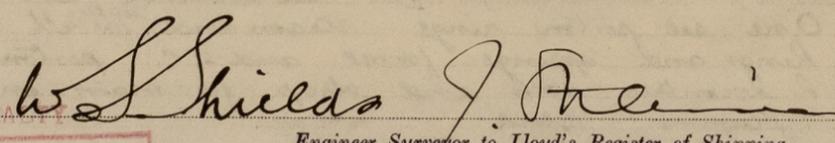
The machinery and auxiliaries have been fitted aboard and when tried under steam at as near full power as practicable in the basin were found satisfactory in every respect. Subsequent River trial satisfactory.

The vessel is eligible, in our opinion, when classed, to have the records of

⊗ L.M.C 9, H.H. and T.C (C.I) and the Notation T 3 cy 15" - 25" - 42" - 27"  
 165 NHP 225 lbs. 1 S.B. 3 cf 93. 64 H.S. 2551. F.D.

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

The amount of Entry Fee	£ 4 : 0 :	When applied for,
Special CLASS. L.M.C.	£ 40 : 0 :	25 SEP 1944
Donkey Bailer Fee	£ 41 : 0 :	When received,
Travelling Expenses (if any)	£ : : :	19

  
 Engineer Surveyor to Lloyd's Register of Shipping.



Committee's Minute TUES. 3 OCT 1944

Assigned +LMC 9, H.H. 2A CL