

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 19 APR 1943

Date of writing Report 1-2-43 5. When handed in at Local Office 16 APR 1943 Port of HULL

No. in Survey held at HULL Date, First Survey 9. 10. 42 Last Survey 26. 12. 19. 43 (Number of Visits 65)

Reg. Book on the H.M.T. **JAPPER** Tons { Gross 580 Net 182

Built at BEVERLEY By whom built **Corn Walker & Gemmell Ltd** Yard No. 705 When built 1943

Engines made at HULL By whom made **Chas. D. Holmes Ltd** Engine No. 1638 When made "

Boilers made at HULL By whom made **Chas. D. Holmes Ltd** Boiler No. 1638 When made "

Registered Horse Power Owners **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" Crank webs Mid. length breadth 16 1/8" Thickness parallel to axis 5 1/2" shrunk Mid. length thickness 5 1/2" 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 8.37. as fitted 8 1/2"

Tube Shafts, diameter as per Rule — as fitted — Screw Shaft, diameter as per Rule 8.86 as fitted 9" Is the { tube screw } shaft fitted with a continuous liner { Yes }

Bronze Liners, thickness in way of bushes as per Rule .57 as fitted 19/32" Thickness between bushes as per Rule .3 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

at No. If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 42" whether Moveable **Slid** Total Developed Surface 42 1/2 sq. feet

Propeller, dia. 10'-9" Pitch 11'-0" No. of Blades 4 Material **C.I.** Can one be overhauled while the other is at work Yes

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 1/2" x 6" Duplex** Pumps connected to the Main Bilge Line { No. and size **One 7" x 5" x 6" Duplex** How driven **Independent Steam** Also one 3" Dia **Steam Ejector**

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" Dia One @ 3" Dia** In Holds, &c. **One 2" Dia in each of the following:—Magazine Gunner's Store Spirit Room D.C. Stores Ford Hold and A.P. Peak.**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One @ 5" Dia** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One 3" Bilge 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 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 **Frd Suctions** How are they protected **plated**

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 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. ft.**

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 lb 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 **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

**One Set piston rings - Steam and Water for all auxiliaries**

**Ring + Packing for MP & LP Pistons**

**2 Eccentric Rods - Straps for Main Engine**

**1 Plumme Block**

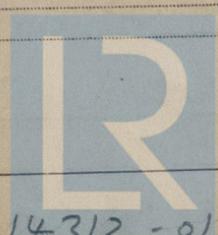
**3 Main Engine Gt. Escape Valve Springs**

The foregoing is a correct description.

FOR CHARLES D. HULL & CO., LTD

*[Signature]*

Manufacturer.



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Lloyd's Register

014312 - 014324 Foundation

NOTE: The words which do not apply should be deleted.

SAPPER

Dates of Survey while building  
 During progress of work in shops -- 1942. Oct 9, 16, 19, 23, 24, 26, 29, 30, 31. Nov. 3, 6, 10, 13, 18, 19, 23, 25. Dec. 3, 4, 5, 7, 9, 10, 12, 16, 17, 18.  
 1943. Jan. 1, 11, 14, 15, 20, 21, Feb. 3, 4, Mar 3.  
 During erection on board vessel -- 1942. Nov 5, 6, 19. 1943 JAN 18, 28, 29. Feb 2, 3, 6, 9, 10, 12, 16, 19, 20, 22, 23, 24, 26.  
 27, Mar. 2, 3, 8, 9, 11, 17, 18, 19, 26.  
 Total No. of visits 65.

Dates of Examination of principal parts - Cylinders 25/11/42. 18/12/42. 23/11/42. Slides 4/12/42. Covers 25/11/42. 18/12/42. 23/11/42.  
 Pistons 18/12/42. 1/1/43. Piston Rods 4/12/42. Connecting rods 12/12/42.  
 Crank shaft 25-11-42. Thrust shaft 10-11-42. Intermediate shafts 7/12/42.  
 Tube shaft NONE. Screw shaft 3-11-42. Propeller 6-11-42. 18.1.43.  
 Stern tube 5-11-42. Engine and boiler seatings 19-11-42. Engines holding down bolts 20.2.43.  
 Completion of fitting sea connections 6-11-42.  
 Completion of pumping arrangements 3.3.43. Boilers fixed 16.2.43. Engines tried under steam 3.3.43, 19.3.43.  
 Main boiler safety valves adjusted 3.3.43. Thickness of adjusting washers P 7/16. S 7/16.  
 Crank shaft material F.1. Steel. Comply. 8930. CP. 12/8/42. Identification Mark Pin 7694. CP. 19/8/42. Thrust shaft material F.1. Steel. Identification Mark 8929 A.B.G. 26/8/42.  
 Intermediate shafts, material F.1. Steel. Identification Marks 8928 CP. 16/9/42. Tube shaft, material NONE. Identification Mark -  
 Screw shaft, material F.1. Steel. Identification Mark 8927. CP. 19-8-42. Steam Pipes, material Steel. Test pressure 775 lb. Date of Test 22.2.43.  
 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? No. If so, state name of vessel. H.M.T. GRENADIER.

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 plan, 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.  
 The Vessel is eligible in our opinion, when classed to have the records of \* LMC 3, 43. and T.S. (CL) and the Notation T3Cy 15"-25", 42"-27". 165 NHP. 225 lb, 15B. 3 cf. G.S. 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 :  
 Special ... £ 40 :  
 Donkey Boiler Fee ... £ 41 :  
 Travelling Expenses (if any) £ :  
 When applied for, 16 APR 1943  
 When received, 19

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

Committee's Minute ... WED. 28 APR 1943  
 Assigned + LMC 3.43 FD CH

