

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 28-10-43 No. in Survey held at HULL. When handed in at Local Office NOV 1943 Port of HULL.

Date, First Survey 4. 5. 43 Last Survey 11. 11. 19 43. (Number of Visits 59)

Reg. Book on the H.M. TRAWLER "GULLAND" Tons { Gross 452 Net 144

Built at BEVERLEY By whom built Carl Weller & General Ltd Yard No. 719 When built 1943

Engines made at HULL By whom made Cha. D. Howe Ltd Engine No. 1659 When made "

Boilers made at W. HARTLEPOOL By whom made Charles Marie E.W. Boiler No. R. 364 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 Revs. per minute 150

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 1/8 Crank pin dia. 7 1/8 Crank webs Mid. length breadth Thickness parallel to axis 4 13/16

Intermediate Shafts, diameter as per Rule 7.15 as fitted 7 1/4 Thrust shaft, diameter at collars as per Rule 7.5 as fitted 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 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 Yes

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 Yes

Propeller, dia. 105 Pitch 9-4 No. of Blades 3 Material C.I. 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 Weirs Pumps connected to the Main Bilge Line No. and size One 6 x 5 1/2 x 15 Weirs

How driven Independent Steam Main Bilge Line How driven Independent steam also DOWNTON.

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 at 3 1/2" dia. Stokehold 2 @ 2" dia

In Pump Room none In Holds, &c. one @ 2" dia. in each of the following: forepeak, chain locker, Arctic space, magazine, Spirit Room, Bunker, Shaft space, after peak

Main Water Circulating Pump Direct Bilge Suctions, No. and size One at 3 1/2" (included above) Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size One at 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 WL

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 tank 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 Tunnel watertight Yes Is it fitted with a watertight door No access from flat above

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2650 ft<sup>2</sup>

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 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting 17-4-39 Main Boilers 15-2-43 J.S. 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

## 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.



GULLAND.

1943  
 During progress of work in shops -- May 7, 14, 21. June 11, 19, 25. July 2, 8, 9, 12, 14, 15, 20, 21, 23. Aug. 6, 13, 21, 23, 24, 30. Sept 1, 2, 3, 4, 10, 14, 15, 18, 21, 23, 24, 24. Oct 6, 14, 15, 18.  
 Dates of Survey while building { During erection on board vessel --- 1943 JULY 23. SEP 9, 23, 24, OCT 6, 7, 8, 12, 13, 14, 18, 19, 22, 25, 26, 27, 28, 29, 30  
 Nov 1  
 Total No. of visits 59.

Dates of Examination of principal parts—Cylinders 2/9/43, 1/9/43, 30/8/43. Slides 4/9/43. Covers 2/9/43, 1/9/43, 30/8/43.  
 Pistons 22/9/43. Piston Rods 19/9/43. Connecting rods 18/9/43.  
 Crank shaft 15.9.43. Thrust shaft 14.9.43. Intermediate shafts 7/9/43, 20/7/43.  
 Tube shaft None. Screw shaft 21-7-43. Propeller 24.9.43.  
 Stern tube 23.7.43. Engine and boiler seatings 23.9.43. Engines holding down bolts 14.10.43.

Completion of fitting sea connections 23.7.43.  
 Completion of pumping arrangements 22.10.43. Boilers fixed 14.10.43. Engines tried under steam 22.10.43.  
 Main boiler safety valves adjusted 22.10.43. Thickness of adjusting washers 3/8" 5/8".  
 Crank shaft material F.1. Steel. Identification Mark 896.F.W. 26.4.43.  
 Intermediate shafts, material F.1. Steel. Identification Marks 47.848.F.W. 15/5/43. Thrust shaft material F1 Steel. Identification Mark 26.4.43.  
 Screw shaft, material F.1. Steel. Identification Mark 2026.I.B.G. 24.6.43. Steam Pipes, material Steel. Test pressure 600 lb/sq. in. Date of Test 14/10/43.  
 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 HMT. "ROSEVEAN"

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 & the Society's Rules, of tested materials supplied by firms approved by the Society. The workmanship & 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 11, 43. and O.G. and the notations T 3 Cy. 13 1/2", 23", 38" - 27" 156 NHP. 200 lb. 15.B. 3.c.f. G.S. 63. HS 2650 F.D.

See also West Hartlepool Rpt N° 18455.

ADMIRALTY.  
 A/c rendered from London 22.11.43.

The amount of Entry Fee	£	21	6	When applied for, 1 NOV 1943
CLASSIFICATION Special	£	36	0	
SPECIFICATION Donkey Boiler Fee	£			When received,
Travelling Expenses (if any)	£		19	

J. P. Green & W. S. Shields.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 19 NOV 1943

Assigned + LMC 11.43  
 FD. OG



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