

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 16.2.42 When handed in at Local Office 20 MAR 1942 Port of HULL Received at London Office 23 MAR 1942  
 No. in Survey held at HULL Date, First Survey 8.9.41 Last Survey 18.3.1942  
 Reg. Book. on the H.M.T. PORTSDOWN (Number of Visits 41)  
 Built at BEVERLEY By whom built Cook Wella & Gemmell Yard No. 685 Tons { Gross 511 Net 167 When built 1942.3  
 Engines made at HULL By whom made Chas. D. Holmes Ltd Engine No. 1601 When made 40  
 Boilers made at HULL By whom made Chas. D. Holmes Ltd Boiler No. 1593 When made 40  
 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 MN 199 (Spt. added 1.47)

**ENGINES, &c.**—Description of Engines Triple Expansion CONTRACT. Revs. per minute 120  
 Dia. of Cylinders 15" x 25" 42" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 8.3 as fitted 8 1/2" Crank pin dia. 8 1/2" Crank webs Mid. length breadth — Thickness parallel to axis 5 1/2"  
 as fitted 8 1/2" Crank webs Mid. length thickness — shrunk Thickness around eye-hole 3 15/16"  
 Intermediate Shafts, diameter as per Rule 7.9 as fitted 8 1/8" Thrust shaft, diameter at collars as per Rule 8.3 as fitted 8 1/2"  
 Tube Shafts, diameter as per Rule — as fitted — Screw Shaft, diameter as per Rule 8.8 as fitted 9" Is the tube shaft fitted with a continuous liner { Yes }  
 as fitted — as fitted 9" Is the screw shaft fitted with a continuous liner { Yes }  
 Bronze Liners, thickness in way of bushes as per Rule 5.643 as fitted 5/8" Thickness between bushes as per Rule 4.232 as fitted 5/8" 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 4 1/2"  
 Propeller, dia. 10'-9" Pitch 11'-7 1/2" No. of Blades 4 Material C.I. whether Moveable Slid Total Developed Surface 43 sq. feet  
 Feed Pumps worked from the Main Engines, No. One Diameter 3" Stroke 16" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. One Diameter 3" Stroke 16" Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size One 6" x 8 1/2" x 13" Pumps connected to the Main Bilge Line { No. and size 1 @ 3" x 16" One 7" x 5" x 6" Duplex 3" One 3" Ejector  
 How driven Independent Steam How driven Main Eng Independent Steam Slid 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  
 Bilge Pumps;—In Engine and Boiler Room 2 @ 2" Dia and 3" Steam Ejector Suctions, connected to both Main Bilge Pumps and Auxiliary In Pump Room In Holds, &c. Five 1/2" D.C. Mas. Spirit Rm. Magazine each 2" Dia.

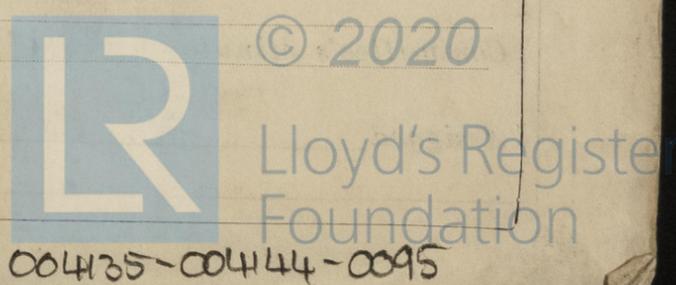
**Main Water Circulating Pump Direct Bilge Suctions, No. and size** One 5" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 3" Steam Ejector  
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
 Are the Bilge Suctions in the Machinery 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  
 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 Forward suction How are they protected Wood Casings  
 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 —  
 + 700 sq ft Spt. added 1.47  
 Total 3318

**MAIN BOILERS, &c.**—(Letter for record 5) Total Heating Surface of Boilers 2358 Working Pressure 220 @ 10'  
 Is Forced Draft fitted Yes No. and Description of Boilers One SB  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? —  
 Is the donkey boiler intended to be used for domestic purposes only —

**PLANS.** Are approved plans forwarded herewith for Shafting 26-3-41 Main Boilers 30.1-41 Auxiliary Boilers — Donkey Boilers —  
 (If not state date of approval)  
 Superheaters — General Pumping Arrangements 15-4-41 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 As specified by Admiralty. List attached

The foregoing is a correct description.  
 FOR CHARLES D. HOLMES & CO., LTD.  
W.R. Evans Manufacturer.



PORTSDOWN

Dates of Survey while building  
 During progress of work in shops -- } 1941. Sept. 8. 12. Oct. 8. 13. Dec. 5. 12. 19. 29. 30. 1942. Jan. 1. 5. 6. 10. 13. 14. 15. 16. 21. 23. 28. 28.  
 During erection on board vessel --- } 29. 30. Feb. 2. 4. 6. 9. 12. 13. 16. 17. 19. 20. 23. 24. 26. Mar. 2. 3. 4. 16. 18.  
 Total No. of visits 41.

Dates of Examination of principal parts—Cylinders 13/1/42. 15/1/42. 14/1/42. Slides 23/1/42. Covers 13/1/42. 15/1/42. 14/1/42.  
 Pistons 12/12/41. 30/12/41. Piston Rods 23/1/41. Connecting rods 23/1/41.  
 Crank shaft 14/1/41. Thrust shaft 6/1/42. Intermediate shafts 1/1/42.  
 Tube shaft None. Screw shaft 13/10/41. Propeller 5/1/42.  
 Stern tube 8/9/41. Engine and boiler seatings 5/1/42. Engines holding down bolts 13.2.42  
 Completion of fitting sea connections 8/9/41

Completion of pumping arrangements 24.2.42 Boilers fixed 13.2.42 Engines tried under steam 4.3.42  
 Main boiler safety valves adjusted 18.3.42 Thickness of adjusting washers 9. 3/8" 5 1/32"  
 Crank shaft material M.S. Ident. Mark 6198. Journal 6199. Thrust shaft material M.S. Ident. Mark 6200  
 Intermediate shafts, material M.S. Ident. Marks 6201. Tube shaft, material None. Ident. Mark  
 Screw shaft, material M.S. Ident. Mark 6166. Steam Pipes, material Steel. Test pressure 660 lbs. 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? Yes.  
 Have the requirements of the Rules for the use of oil as fuel been complied with? Yes.  
 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: BIRD LIP.

General Remarks (State quality of workmanship, opinions as to class, &c.)  
 This vessel has been constructed under Special Survey in accordance with the approved plans, the Society's Rules and the Admiralty Specifications. The workmanship & materials are good & when tried under steam it was found satisfactory in every respect.  
 It is eligible, in my opinion, to have the records of L.M.C 3.42. C.L. & the notations T. 3 Cy- 15"-25"-42"-27" 220 lbs. 156 NHP. 1.S.B. 3 Cf. H.S. 2358. G.S. 63 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 ... £	:	:	When applied for,
Special ... £ 18 : 0	:	:	6 MAR 1942
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19.

*[Signature]*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 24 MAR 1942  
 Assigned *[Signature]*

