

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 12th SEPT. 1945 When handed in at Local Office 25th SEPT. 1945 Port of

DARTMOUTH

No. in Survey held at **DARTMOUTH** Date, First Survey 6-2-45 Last Survey 24-8-1945

Reg. Book. on the **SINGLE SCREW BOOM DEFENCE VESSEL H.M.S. "BARITONE" (J6139)** (Number of Visits 36) Tons { Gross 625.68

Built at **DARTMOUTH** By whom built **MESSRS PHILIP & SON, LTD.** Yard No. 1115 When built 1945

Engines made at **HULL** By whom made **CHARLES D. HOLMES LTD** Engine No. E1 when made 1945

Boilers made at **PAISLEY** By whom made **MESSRS A.F. CRAIG & CO. LTD.** Boiler No. { 837 / 838 when made 1945

INDICATED Registered Horse Power 850 Owners **THE ADMIRALTY** Port belonging to ✓

Nom. Horse Power as per Rule 210 207 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which Vessel is intended **GOVERNMENT SERVICE - BOOM DEFENCE** ✓

ENGINES, &c. Description of Engines **TRIPLE EXPANSION RECIPROCATING.** Revs. per minute 176 FREE 160 TOWING.

Dia. of Cylinders 14 3/4" x 23 1/2" x 39" Length of Stroke 24" No. of Cylinders THREE No. of Cranks THREE

Crank shaft, dia. of journals as per Rule 7.615" as fitted 7 3/4" Crank pin dia. 7 3/4" Crank webs Mid. length breadth 13 3/8" Thickness parallel to axis 4 5/8" Mid. length thickness 4 3/8" shrunk Thickness around eye-hole 3 3/8"

Intermediate Shafts, diameter as per Rule 7.253" as fitted 7 3/8" Thrust shaft, diameter at collars as per Rule 7.615" as fitted 7 3/4"

Tube Shafts, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 8.343" as fitted 8 1/2" Is the screw 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 ✓

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓

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 shaft YES. NEWARK TYPE. Length of Bearing in Stern Bush next to and supporting propeller 3' 1" ✓

Propeller, dia. 9' 1" Pitch 7' 5" No. of Blades FOUR Material CAST IRON whether Moveable No Total Developed Surface 30 sq. feet

Feed Pumps worked from the Main Engines, No. NONE Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Bilge Pumps worked from the Main Engines, No. NONE Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Feed Pumps { No. and size TWO - 7" x 5" x 12" How driven STEAM. Pumps connected to the Main Bilge Line { No. and size TWO - 5 1/4" x 7" x 12" ONE - 7" x 5 1/4" x 12" ONE - DOWNTON. How driven STEAM. STEAM. HAND.

Ballast Pumps, No. and size TWO - 5 1/4" x 7" x 12" Lubricating Oil Pumps, including Spare Pump, No. and size NONE

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 ENG. ROOM 1 @ 3" AND 2 @ 2 1/2" BOILER ROOM 2 @ 2 1/2"

In Holds, &c. ONE @ 2" IN HOLD, CENTRAL STORE, MAGAZINE, SPIRIT ROOM, INFLAMMABLE STORE, W.T. COMPARTMENT & PROVISION ROOM.

Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE @ 6" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE @ 3" 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 BELOW

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 NONE How are they protected ✓

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 3840 sq. ft. Is Forced Draft fitted YES No. and Description of Boilers 2 S. B. Working Pressure 200 LBS. S.D.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? YES

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

PLANS. Are approved plans forwarded herewith for Shafting ✓ Main Boilers ✓ Auxiliary Boilers ✓ Donkey Boilers ✓

Superheaters ✓ General Pumping Arrangements ✓ Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied: - AS PER ADMIRALTY REQUIREMENTS. ✓

The foregoing is a correct description.

John J. Pauter

MANAGING DIRECTOR

Manufacturer.



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003800-003807-0016

During progress of work in shops - - - ✓
 Dates of Survey while building {
 During erection on board vessel - - - ✓
 6th FEBRUARY 1945 TO 24th AUGUST 1945
 Total No. of visits DURING ERECTION ON BOARD, 36

Dates of Examination of principal parts—Cylinders 10-3-44 to 22-3-44 Slides 28-4-44 Covers 10-3-44 to 22-3-44
 Pistons 19-5-44 Piston Rods 19-5-44 Connecting rods 12-5-44
 Crank shaft 3-5-44 Thrust shaft 20-11-44 Intermediate shafts NONE.
 Tube shaft NONE Screw shaft 5-4-44 Propeller 27-2-45
 Stern tube 6-2-45 Engine and boiler seatings 3-3-45 Engines holding down bolts 1-6-

Completion of fitting sea connections 2-3-45
 Completion of pumping arrangements 11-6-45 Boilers fixed 4-6-45 Engines tried under steam 29-6-45
 Main boiler safety valves adjusted 15-6-45 Thickness of adjusting washers FORP P₅: 9⁵/₈ AF1 P₅: 9⁵/₈
 Crank shaft material F.I. STEEL. Identification Mark PINS. 2549.F.H. 14-2-44 Thrust shaft material F.I. STEEL Identification Mark F.H. 24-2-44
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material F.I. STEEL Identification Mark F.H. 14-2-44 Steam Pipes, material S.D. STEEL Test pressure 600 LBS/IN² Dates of Test 20-3-45 to 14-4-45

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 ✓
 Is this machinery duplicate of a previous case YES. ✓ If so, state name of vessel H.M.S. "BARCOMBE"

General Remarks (State quality of workmanship, opinions as to class, &c.)
 THIS MACHINERY HAS NOW BEEN SATISFACTORILY INSTALLED IN THE VESSEL IN ACCORDANCE WITH THE SOCIETY'S RULES, APPROVED PLANS, SECRETARY'S LETTERS AND SPECIFICATION THE MACHINERY AND BOILERS WERE TRIED UNDER FULL WORKING CONDITIONS DURING A SEA TRIAL AND FOUND SATISFACTORY, AND ARE ELIGIBLE IN MY OPINION FOR CLASSIFICATION WITH THE NOTATION ⚓ L.M.C. 8,45. O.G. F.D.

The amount of Entry Fee ... £ : : When applied for,
 50F CLASSIFICATION
 110-0-0 Special SUPERVISIONS OF £22-0-0 25-9-1945 ALL.
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : 19

A. S. Griffith
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 9 NOV 1945

Assigned + LMC 8,45
 F.D. O.G.

