

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19... When handed in at Local Office 16 APR 1943 Port of HULL
 No. in Survey held at HULL Date, First Survey 22. 9. 42 Last Survey 2. 4. 1943
 Reg. Book on the H.M.T. BREAM (Number of Visits...)
 Tons { Gross 389
 Net 128
 Built at SELBY By whom built Cochrane & Co. Ltd. Yard No. 1259 When built 1943
 Engines made at HULL By whom made Armstrong & Co. Ltd. Engine No. 717 When made
 Boilers made at HULL By whom made Armstrong & Co. Ltd. Boiler No. 717 When made
 Registered Horse Power Owners THE ADMIRALTY Port belonging to
 Nom. Horse Power as per Rule 125 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 115.
 Dia. of Cylinders 13 1/2", 24", 39" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 7.65" as fitted 8" Crank pin dia. 8" Crank webs Mid. length breadth — Thickness parallel to axis 5" shrunk Mid. length thickness — Thickness around eye-hole 3 9/16"
 Intermediate Shafts, diameter as per Rule 7.3" as fitted 7 3/4" Thrust shaft, diameter at collars as per Rule 7.65" as fitted 8" Dia
 Tube Shafts, diameter as per Rule — as fitted None Screw Shaft, diameter as per Rule 8.15" as fitted 8 1/2" Is the { tube screw } shaft fitted with a continuous liner { Yes
 Bronze Liners, thickness in way of bushes as per Rule 9/16" as fitted 19/32" Thickness between bushes as per Rule — as fitted 19/32" 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 at No. If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 2'-11 9/16"
 Propeller, dia. 10'-3" Pitch 10'-9" No. of Blades 4 Material CI whether Moveable Solid Total Developed Surface 39 1/2 sq. feet
 Feed Pumps worked from the Main Engines, No. One Diameter 3" Stroke 15" Can one be overhauled while the other is at work (one at a time)
 Bilge Pumps worked from the Main Engines, No. One Diameter 3" Stroke 15" Can one be overhauled while the other is at work "
 Feed Pumps { No. and size One 6" x 4 1/2" x 6" Duplex How driven Independent Steam Pumps connected to the Main Bilge Line { No. and size 6" x 4 1/2" x 6" Duplex 23" Ejector 2 M.E. Pumps How driven Independent Steam
 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 2 @ 2" Dia and One 3" Steam Ejector (see below)
 In Pump Room — In Holds, &c. One @ 2" Dia in each of the following: Forward Ballast Space, Asdic Room, After Ballast Space, Magazine, Magazine Locker, Spirit 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" 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 None for Suctions How are they protected — HEAVY WOOD & STEEL PLATING
 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 —

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 1873. sq. ft.
 Which Boilers are fitted with Forced Draft See Which Boilers are fitted with Superheaters None
 No. and Description of Boilers One S.B. Working Pressure 210 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 13-8-41 Main Boilers 13-8-41 Auxiliary Boilers None Donkey Boilers None
 (If not state date of approval)

Superheaters None General Pumping Arrangements 16-6-41 Oil fuel Burning Piping Arrangements None

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 AMOS & SMITH LTD.

A. R. Newby
 DIRECTOR

Manufacturer.

005089-005097-0032

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Lloyd's Register
 Foundation

BREAM.

Dates of Survey while building

During progress of work in shops - - 1942. Sept 22, 26, 29, Oct 2, 14, 16, 24, 26, Nov 13, 16, 17, 18, 24, Dec 2, 4, 7, 16, 22, 29.

During erection on board vessel - - 1943. Jan 2, 18, 23, 26, 27, 28, 29, Feb 2, 3, 4, 6, 9, 10, 12, 13, 14, 16, 19, 25, Mar 3, 4, 6, 27, Apr 2, 8.

Total No. of visits 44.

Dates of Examination of principal parts - Cylinders 13/11/42 16/11/42 18/11/42 Slides 2/10/42 Covers 13/11/42 16/11/42 18/11/42.

Pistons 7/12/42 Piston Rods 26/9/42 Connecting rods 7/12/42.

Crank shaft 2/12/42 Thrust shaft 22/9/42 Intermediate shafts 22/9/42.

Tube shaft None Screw shaft 29/1/42 Propeller 4/12/42.

Stern tube 4/12/42 Engine and boiler seatings 27/1/43 Engines holding down bolts 27/1/43.

Completion of fitting sea connections 4/12/42

Completion of pumping arrangements 12/2/43 Boilers fixed 27/1/43 Engines tried under steam 12/2/43 19/2/43.

Main boiler safety valves adjusted 12/2/43 Thickness of adjusting washers P 1/32" S 3/8"

Crank shaft material F.1.8K Identification Mark Pius 134 FW Thrust shaft material F.1.8K Identification Mark 132 FW 28/8/42

Intermediate shafts, material F.1.8K Identification Marks 162 FW 28/8/42 Tube shaft, material None Identification Mark -

Screw shaft, material F.1.8K Identification Mark 131 FW 12/2/42 Steam Pipes, material Steel Test pressure 630 lb Date of Test 2.2.43

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 Yes If so, state name of vessel H.M.T. GRAYLING.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Machinery of this Vessel has been constructed under Special Survey in accordance with approved plans, the Rules, Specification and Admiralty requirements, of good materials and workmanship.

The Machinery has been fitted aboard under Special Survey and, when tried under working conditions was found satisfactory in every respect.

It is eligible, in my opinion, to have the records LMC 3,43. CL and the Notation T. 3 Cy. 13 1/2", 24", 39" - 27" 210 lb 19: NHP 125. G.S. 50. H.S. 1873. F.O.

Certificate to be sent to

The amount of Entry Fee ... £ : : When applied for, 16 APR 1943

Special ... £ 62 : - : When received,

Donkey Boiler Fee ... £ : :

Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned

+ LMC 4.43

FD CL

WED. 28 APR 1943

W. Shields, J. O'Brien
Engineer Surveyor to Lloyd's Register of Shipping.



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