

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

16 APR 1943

Received at London Office.

Date of writing Report 19... When handed in at Local Office 19... Port of HULL

No. in Survey held at HULL Date, First Survey 22. 9. 42 Last Survey 9. 4. 1943

Reg. Book on the H.M.T. BREAM (Number of Visits...)

Tons { Gross 389  
Net 128

Built at SELBY By whom built Cochran & Co. Ltd. Yard No. 1259. When built 1943

Engines made at HULL By whom made Amos & Smith Ltd. Engine No. 717. When made...

Boilers made at HULL By whom made Amos & Smith 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" Mid. length thickness — shrunk 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 on)

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 1/4" x 6" Duplex Pumps connected to the Main Bilge Line { No. and size 6" x 4 1/4" x 6" Duplex 23" Ejector 2 M.E. Pumps How driven Independent Steam Independent Steam 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 All 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.



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Lloyd's Register Foundation

005089-005097-0032

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, 27, Dec. 2, 4, 9, 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 26/10/42 Connecting rods 7/12/42  
 Crank shaft 2/12/42 Thrust shaft 22/10/42 Intermediate shafts 22/10/42  
 Tube shaft None Screw shaft 29/10/42 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 Pms 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. 12/8/42 Steam Pipes, material Stab 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, Specifications 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 Notations T. 3 Cy. 13 1/2", 24", 39" - 27" 210 lb 10' NHP 125. G.S. 50. H.S. 1873. F.O.

The amount of Entry Fee	£	:	:	When applied for,
Special	62	:	-	16 APR 1943
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

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

Committee's Minute  
 Assigned + LMC H. 43  
 FD CH

