

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 29-6-1944 When handed in at Local Office 1.7.1944 Port of GLASSGOW
 No. in Survey held at GLASSGOW Date, First Survey 18.12.42 Last Survey 27-6-1944
 Reg. Book GLASSGOW (Number of Visits 29)
 on the S.S. "EMPIRE DOMBEY" Tons (Gross 813 Net 334)
 Built at GLASSGOW By whom built A. J. INGLIS LTD. Yard No. 1227 P When built 1944
 Engines made at CLYDEBANK By whom made HITCHISON BLAIR LTD. Engine No. 261 When made 1944
 Boilers made at GLASSGOW By whom made BARCLAY CURRIE & CO. LTD. Boiler No. 5342/24 When made 1944
 Registered Horse Power 142 Owners Howe Port belonging to Glasgow
 Nom. Horse Power as per Rule 142 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES
 Trade for which vessel is intended _____

ENGINES, &c.—Description of Engines TRIPLE EXPANSION Revs. per minute 95
 Dia. of Cylinders 15" - 25 1/2" - 41" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 8.169 Crank pin dia. 8 3/8" Crank webs Mid. length breadth 16" Thickness parallel to axis 5 1/2"
 as fitted 8 3/8" Mid. length thickness 5 1/2" shrunk Thickness around eye-hole 3 7/16" x 3 13/16"
 Intermediate Shafts, diameter as per Rule 7.78 Thrust shaft, diameter at collars as per Rule 8.169
 as fitted 8" as fitted 8 3/8"
 Tube Shafts, diameter as per Rule _____ Screw Shaft, diameter as per Rule 8.68
 as fitted _____ as fitted 8 7/8" Is the tube shaft fitted with a continuous liner yes
 as fitted _____ as fitted _____
 Bronze Liners, thickness in way of bushes as per Rule .42 Thickness between bushes as per Rule .32 Is the after end of the liner made watertight in the
 as fitted 19/32" as fitted 17/32" 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 _____
 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 _____ If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller 3'0"
 Propeller, dia. 10'9" Pitch 11'3" No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 41 sq. feet
 Feed Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 16 1/2" Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 2 @ 5" x 7" x 12" Pumps connected to the { No. and size 1 @ 6 1/2" x 7" x 15"
 How driven Steam Main Bilge Line { How driven Steam
 Ballast Pumps, No. and size 1 @ 6 1/2" x 7" x 15" 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 2 @ 2 1/2" 2 @ 2"
 In Pump Room 1 @ 3" In Holds, &c. _____

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 4" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1 @ 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 2188
 Which Boilers are fitted with Forced Draft Main Boiler Which Boilers are fitted with Superheaters _____
 No. and Description of Boilers 1 - Oil fired Multitubular Working Pressure 190 lb./sq. in.
 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 yes Main Boilers yes Auxiliary Boilers _____ Donkey Boilers _____
 (If not state date of approval)
 Superheaters _____ General Pumping Arrangements 23-1-43 Oil fuel Burning Piping Arrangements 23-1-43

SPARE GEAR.
 Has the spare gear required by the Rules been supplied yes (List attached)
 State the principal additional spare gear supplied _____

The foregoing is a correct description.

HITCHISON BLAIR, LIMITED.
A. Thomson DIRECTOR

Manufacturer.



During progress of work in shops - - *1942 Dec 18 1943 Jan 13 27 Feb 2 11 24 March 11 April 13 May 6 19 June 15 July 5 14 Aug 3 17*
Sep 20 23 28 Oct 13 20 26 Nov 1 5 16 22 26 Dec 3 6 1944 Jan 7 13 19 21 24 28 Feb 4 9 18 25 28 March
 During erection on board vessel - - - *6 8 13 15 27 30 April 7 26 May 5 8 11 31 June 1 6 14 19 22 26 27*
 Total No. of visits *59*

Dates of Examination of principal parts - Cylinders *HP 13-10-43* Slides *17-8-43* Covers *16-11-43*
IP 6-12-43
LP 13-10-43
 Pistons *7-8-43* Piston Rods *17-8-43* Connecting rods *6-12-43*
 Crank shaft *24-9-43* Thrust shaft *8-5-44* Intermediate shafts *✓*
 Tube shaft *✓* Screw shaft *8-5-44* Propeller *8-5-44*
 Stern tube *8-5-44* Engine and boiler seatings *17-4-44* Engines holding down bolts *31-5-44*
 Completion of fitting sea connections *11-5-44*
 Completion of pumping arrangements *26-6-44* Boilers fixed *31-5-44* Engines tried under steam *19-6-44*
 Main boiler safety valves adjusted *19-6-44* Thickness of adjusting washers *P 7/16 S 7/16*
 Crank shaft material *S* Identification Mark *7703 JFC* Thrust shaft material *S* Identification Mark *1051 NK*
 Intermediate shafts, material *-* Identification Marks *-* Tube shaft, material *-* Identification Mark *-*
 Screw shaft, material *S* Identification Mark *1051* Steam Pipes, material *OH Steel* Test pressure *600* Date of Test *13-6-44*
 Is an installation fitted for burning oil fuel *yes* 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 *✓* 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 *S.S. EMPIRE HARVEST G.L.S. Rpt. 67910*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under Special Survey in accordance with the Rules and approved plans and the materials and workmanship are good. It has been securely fitted on board the vessel, tested under working conditions and is eligible in our opinion to be classed with record + HMC 6, 44 TS'CL and notation fitted for oil fuel 6, 44 F.P. above 150°F*
The requirements of the Specification have been satisfactorily carried out

GLASGOW

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	£ 3	When applied for,
Special	£ 35	10
Donkey Boiler Fee	£ 8	17/6
Travelling Expenses (if any)	£	19

4 JUL 1944
 When received,

W. Russell *M. Dale*
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW** *4 JUL 1944*

Assigned *1-1 Aug 6. 44*
Fitted for oil fuel 6. 44 F.P. above 150°F

