

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 31. 1. 1944 When handed in at Local Office Port of GLASSGOW

No. in Survey held at GLASSGOW Date, First Survey 19. 10. 1942 Last Survey 28. 12. 1943

Reg. Book on the SS "EMPIRE HARVEST" (Number of Visits 39)

Tons { Gross 814
Net 332

Built at GLASSGOW By whom built A. J. Inglis & Co. Yard No. 1225 P. When built 1943.

Engines made at CLYDEBANK By whom made HITCHISON, BLAIR & Co. Engine No. 260. When made 1943.

Boilers made at GLASSGOW By whom made Barclay Curie & Co. Boiler No. SB 42/17 When made 1943.

Registered Horse Power Owners Port belonging to

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" 25½" 41" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 8.169 as fitted 8½" Crank pin dia. 8¾" Crank webs Mid. length breadth 16" Thickness parallel to axis 5½" shrunk

Intermediate Shafts, diameter as per Rule 7.78 as fitted 8" Thrust shaft, diameter at collars as per Rule 8.169 as fitted 8¾"

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 8.68 as fitted 8¾" Is the (tube screw) shaft fitted with a continuous liner? yes

Bronze Liners, thickness in way of bushes as per Rule 0.42 as fitted 19/32 Thickness between bushes as per Rule 0.32 as fitted 17/32 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

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 16½" Can one be overhauled while the other is at work yes

Feed Pumps { No. and size 2 @ 5" x 7" x 12" How driven Steam Pumps connected to the Main Bilge Line { No. and size 1 @ 6½" x 7" x 15" How driven Steam

Ballast Pumps, No. and size 1 @ 6½" 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 None Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room 2-2½" 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 67) Total Heating Surface of Boilers 2188 ft²

Which Boilers are fitted with Forced Draft Main Boiler Which Boilers are fitted with Superheaters

No. and Description of Boilers 1- Marine Return Tube Oil fired Working Pressure 190 lb/sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

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 6-10-42 Main Boilers No 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

State the principal additional spare gear supplied

The foregoing is a correct description.

FOR AND ON BEHALF OF

HITCHISON, BLAIR, LIMITED

A. J. Inglis & Co. DIRECTOR

Manufacturer.



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100476-00724-0202

Dates
of Survey
while
building

During progress of
work in shops - -

During erection on
board vessel - - -

Total No. of visits

1942 Oct 19.30 Nov 3.18.25 Dec 18 1943 Jan 13.27 Feb 2.11.24 Mar 16 Apr 1.13 May 6.19
Jun 15.16.18 July 5.14 Aug 3.17 Sep 23.28 Oct 7.13 Nov 1.3.5.10.17 Dec 6.7.9.14.21.23.28

39

Dates of Examination of principal parts—Cylinders 16-6-43 etc Slides 16-6-43 etc Covers 17-8-43

Pistons 17-8-43 Piston Rods 17-8-43 Connecting rods 17-8-43

Crank shaft 18-6-43 Thrust shaft 5-11-43 Intermediate shafts ✓

Tube shaft ✓ Screw shaft 5-11-43 Propeller 10-11-43

Stern tube 10-11-43 Engine and boiler seatings 10-11-43 Engines holding down bolts 6-12-43

Completion of fitting sea connections 10-11-43

Completion of pumping arrangements 28-12-43 Boilers fixed 6-12-43 Engines tried under steam 28-12-43

Main boiler safety valves adjusted 21-12-43 Thickness of adjusting washers P. 7/16 S. 3/8

Crank shaft material S.M. Steel Identification Mark 7401 Thrust shaft material S Identification Mark 1050

Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material S Identification Mark 1050 Steam Pipes, material OH Steel Test pressure 670 Date of Test 1-12-43

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 Empire Gyron flb Rpt 66313

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under

Special Survey in accordance with the Rules and the 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 records LMC* 12-43 and notation Fitted for oil fuel 12-43 F.P. above 150°F. and C.L.

The boiler was constructed by Messrs Barclay Curle & Co under job N° 42/17 under B.C. survey.

The requirements of the Specification have been satisfactorily carried out.

The amount of Entry Fee £ 21 : 6 : When applied for,
Special ... £ 5 : 6 : 1 FEB 1944
Donkey Boiler Fee ... £ - : - : When received,
Travelling Expenses (if any) £ - : - : 19

Committee's Minute

GLASGOW

1 FEB 1944

Assigned

LMC* 12.43

J.R. Dale & W. Russell.

Engineer Surveyor to Lloyd's Register of Shipping.



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