

Rpt. 4.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 23 SEP 1943 30 OCT 1943

Date of writing Report 19 18-9-43 When handed in at Local Office GLASGOW Port of GLASGOW
 No. in Survey held at TROON Date, First Survey 2-12-42 Last Survey 15-9-1943
 Reg. Book (Number of Visits 50)
 on the ADMIRALTY Y. AMS/788 "EMPIRE SUSAN" Tons {Gross
 Net
 Built at NEWCASTLE By whom built CLELANDS (SUCCESSORS) LTD Yard No. 71 When built
 Engines made at TROON By whom made AILSA SHIPBUILDING CO. LTD Engine No. 193 When made 1943
 Boilers made at WEST HARTLEPOOL By whom made CENTRAL MARINE Eng Boiler No. When made
 Registered Horse Power Owners THE ADMIRALTY Port belonging to
 Nom. Horse Power as per Rule 149 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Trade for which vessel is intended

ENGINES, &c.—Description of Engines STEAM RECIPROCATING Revs. per minute 130
 Dia. of Cylinders 16" 26" 43" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 8.795 as fitted 9" Crank pin dia. 9" Mid. length breadth 17 1/2" Thickness parallel to axis 5 5/8"
 Crank webs Mid. length thickness 5 5/8" shrunk Thickness around eye-hole 4"
 Intermediate Shafts, diameter as per Rule 8.37 Thrust shaft, diameter at collars as per Rule
 as fitted Tube Shafts, diameter as per Rule Screw Shaft, diameter as fitted Is the {tube screw} shaft fitted with a continuous liner {
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule 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 tube
 at If so, state type Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, dia. Pitch No. of Blades Material whether Moveable Total Developed Surface sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 16" Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 16" Can one be overhauled while the other is at work yes
 Feed Pumps {No. and size How driven} Pumps connected to the {No. and size How driven} Main Bilge Line
 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 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 In Pump Room In Holds, &c.
 Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes
 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
 Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges above or below the deep water line
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
 What Pipes pass through the bunkers 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
 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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers
 Which Boilers are fitted with Forced Draft Which Boilers are fitted with Superheaters
 No. and Description of Boilers Working Pressure 210 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?
 IS A DONKEY BOILER FITTED? 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 Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval)
 Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES
 State the principal additional spare gear supplied per SPECIFICATION

The foregoing is a correct description.
 FOR AILSA SHIPBUILDING CO., LIMITED

J. McLaughlin
 Engineer Manager

Manufacturer.



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Lloyd's Register
 Foundation

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During progress of work in shops - - { 1942 Dec 2-4 1943 Jan 13-15-22-29 Feb 3-9 17-19 24-26 Mar 5-10 12-17 26-31 Apr 7-9 14-20 30-May 7-13-17
 20 Jun 2-4 9-11 16-21 23-28-30 July 1-5-19-23 Aug 4-9 13-16 18-20 Sep 3-6 8-10 15
 Dates of Survey while building {
 During erection on board vessel - - - {
 Total No. of visits 50

Dates of Examination of principal parts—Cylinders 2.6.43 Slides 11.6.43 Covers 2.6.43
 Pistons 11.6.43 Piston Rods 10.9.43 Connecting rods 10.9.43
 Crank shaft 2.7.43 Thrust shaft Intermediate shafts
 Tube shaft Screw shaft Propeller
 Stern tube Engine and boiler seatings Engines holding down bolts
 Completion of fitting sea connections
 Completion of pumping arrangements Boilers fixed Engines tried under steam
 Main boiler safety valves adjusted Thickness of adjusting washers
 Crank shaft material STEEL Identification Mark 7688 Thrust shaft material Identification Mark
 Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark
 Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test
 Is an installation fitted for burning oil fuel 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. 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 AILSA S.B.C. No 192

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under Special Survey and in accordance with the Society's Rules, approved plans, and in accordance with the Admiralty's specification. The materials and workmanship are good.
 The machinery is being forwarded to Sunderland to be fitted on board vessel.

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Certificate to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee	2/3	£ 14 : 18	When applied for, 21 SEP 1943
Special	Spec.	£ 3 : 16	
Donkey Boiler Fee		£ :	When received, 19
Travelling Expenses (if any)		£ 3 : 6	

James Crawford
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 21 SEP 1943
 Assigned Deputed per Completion see minutes on 26 Rpt.

