

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 17 DEC 1942

Date of writing Report 19 When handed in at Local Office 18. 12. 42 Port of Glasgow

No. in Survey held at Glasgow Reg. Book. Date, First Survey (1941) June 20<sup>th</sup> Last Survey 8-12-1942  
(Number of Visits 40)

on the "EMPIRE DEED" Tons { Gross 6766  
Net 4639

Built at Sunderland By whom built Bartram & Co. Ltd. Yard No. 295 When built 1943

Engines made at Glasgow By whom made Duncan Stewart & Co. Ltd. Engine No. 150 When made 1943

Boilers made at Sunderland By whom made H.C. Mann & Co. (1938) Boiler No. 4036 When made 1943

Registered Horse Power Owners M.O.W.P. Mungo, Campbell & Co. Ltd. Port belonging to Sunderland

Nom. Horse Power as per Rule 510 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

Dia. of Cylinders 24 1/2" - 39" - 70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 1 1/4" Crank pin dia. 14 3/4" Crank webs Mid. length breadth 22" Thickness parallel to axis 9" Mid. length thickness 9" shrunk Thickness around eye-hole 6 3/8"

Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule

Tube Shafts, diameter as fitted 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 fitted 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. none Diameter - Stroke - Can one be overhauled while the other is at work -

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 27" 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 stakehold 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

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 Arrangement.

### SPARE GEAR.

Has the spare gear required by the Rules been supplied only as per list attached ✓

State the principal additional spare gear supplied

The foregoing is a correct description.  
DUNCAN STEWART & CO. LTD.

Frank B. Suddaby

Manufacturer.

Director



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If not, state whether, and when, one will be sent? Report also sent on the hull of the ship. The words which do not apply should be deleted.

2445

(1941) June 20, July 9, 23, 31 Aug. 12, Sept. 2, 14, 17 Oct. 10, Nov. 7, 13,  
 Dec. 17, 18, 29 (1942) Feb. 26 Mar. 3, 20, Apr. 2, 15, 24, May 4, 15, 20, 25  
 June 8, 16, July 3 Aug. 3, 11, 12, 15, 28 Sept. 9, 22, Oct. 9, 23  
 Nov. 4, 10, 27 Dec. 8

Dates of Survey while building  
 During progress of work in shops --  
 During erection on board vessel --  
 Total No. of visits 450

Dates of Examination of principal parts—Cylinders 12-8-42 Slides 9-9-42 Covers 1-4-42  
 Pistons 2-4-42 Piston Rods 4-11-42 Connecting rods 15-5-42  
 Crank shaft 9-10-42 Thrust shaft Intermediate shafts  
 Tube shaft Screw shaft Propeller  
 Stern tube Engine and boiler seatings Engines holding down bolts  
 Completion of fitting sea connections Boilers fixed Engines tried under steam  
 Completion of pumping arrangements Thickness of adjusting washers  
 Main boiler safety valves adjusted Crank shaft material J. Steel Identification Mark 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 If so, state name of vessel (in class) G.L.R.N. 65360

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

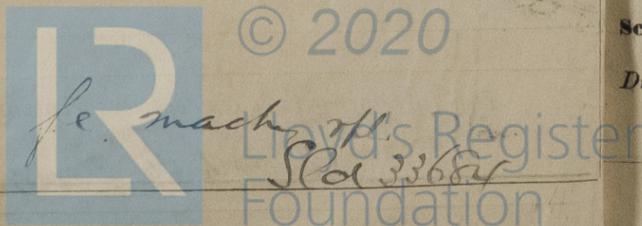
\* In addition tell the original identification marks are stamped on each forging as per report attached.  
 The materials and workmanship are good.  
 The engines have been constructed under special survey and in accordance with the M.S. Specification. On satisfactory completion of fitting in the vessel and of trials, they will in my opinion be eligible for classification and the record of L.M.C. (with date).  
 The following items, for use with superheated steam are incomplete and will be fitted at Sunderland. — cast steel engine stop valve, insulation to cylinder bottoms, connections from mechanical lubricator to MP slide valve, stop valve, HP metallic packing & valve spindle guide.  
 The engines have been sent to Sunderland Surveyors advised.

The amount of Entry Fee ... £ 6 : :  
 Special Specification Fee ... £ 50 : 5 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 15 DEC 1942  
 When received, 19

Committee's Minute GLASGOW 15 DEC 1942

Assigned Separated for Completion

Proposed by L. B. Davis -  
 Engineer Surveyor to Lloyd's Register of Shipping.



The Surveys are requested not to write on or behind the space for Committee's Minute.

PI  
C  
ST  
Flat  
Bott St  
Bilge St  
Side St  
Upper str  
Upper str  
Stral str  
Stral str  
Poop  
Bridg  
Fore  
Total  
N  
N  
N  
COLI  
AFTI  
STI