

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-4 DEC 1929

Date of writing Report 19 When handed in at Local Office 2. 12. 1929 Port of Glasgow  
 No. in Survey held at Glasgow Reg. Book. 43015 on the S/S "Zouave"  
 Date, First Survey 28. 5. 29 Last Survey 2-12-1929 (Number of Visits 33)  
 Built at Burntisland By whom built Burntisland SB Co. Ltd. Yard No. 158 When built 1929  
 Engines made at Glasgow By whom made David Rowan & Co. Ltd. Engine No. 918 when made 1929  
 Boilers made at Glasgow By whom made David Rowan & Co. Ltd. Boiler No. 918 when made 1929  
 Registered Horse Power Owners The Zonal Steamship Co. Ltd. Port belonging to London.  
 Nom. Horse Power as per Rule 351 Is Refrigerating Machinery fitted for cargo purposes Electric Light fitted  
 Trade for which Vessel is intended

**ENGINES, &c.**—Description of Engines Triple expansion Revs. per minute  
 Dia. of Cylinders 23" 39" 65" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 12.695" Crank pin dia. 13" Crank webs Mid. length breadth 18 1/2" Thickness parallel to axis 8 3/4"  
 as fitted 12 3/4" Mid. length thickness 8 1/2" shrunk Thickness around eye-hole 5 3/4"  
 Intermediate Shafts, diameter as per Rule 12.09" Thrust shaft, diameter at collars as per Rule 12.695"  
 as fitted 12 1/8" as fitted 12 3/4"  
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 13.59" Is the tube shaft fitted with a continuous liner? yes  
 as fitted 7 1/3" as fitted 13 3/4" Is the screw shaft fitted with a continuous liner? yes  
 Bronze Liners, thickness in way of bushes as per Rule 7 1/3" Thickness between bushes as per Rule 5 3/8" Is the after end of the liner made watertight in the propeller boss? yes  
 as fitted 3 1/4" as fitted 11" 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? yes  
 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 shaft? no  
 Length of Bearing in Stern Bush next to and supporting propeller 4.7"  
 Propeller, dia. 19" Pitch 18" No. of Blades 4 Material Cast iron whether Moveable no Total Developed Surface 104.6 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 8 1/2" Stroke 24" Can one be overhauled while the other is at work? yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work? yes  
 Feed Pumps { No. and size Pumps connected to the { No. and size  
 { How driven { Main Bilge Line { How driven  
 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  
 Bilge Pumps;—In Engine and Boiler Room Suctions, connected to both Main Bilge Pumps and Auxiliary  
 In Holds, &c.

**MAIN BOILERS, &c.**—(Letter for record (5)) Total Heating Surface of Boilers 4606 sq. ft.  
 Is Forced Draft fitted yes No. and Description of Boilers 2SB Working Pressure 200  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes  
 PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers yes Auxiliary Boilers - Donkey Boilers yes  
 (If not state date of approval)  
 Superheaters - General Pumping Arrangements no Oil fuel Burning Piping Arrangements -  
**SPARE GEAR.** State the articles supplied:—

The foregoing is a correct description,  
 For David Rowan & Co. Ltd.  
 Archd N. Griersons.

Manufacturer.



See separate report.

20994

1929 May 28-30 June 10-22 29 Aug 19 Sep 6-11-17 18-25-26 Oct 3-4-7-15-21-22-25-28-29-30  
During progress of work in shops -- *Wapacale 14-15-20 Dec 2*

Dates of Survey while building During erection on board vessel --

Total No. of visits 33

Dates of Examination of principal parts—Cylinders 3-10-29 Slides 30-10-29 Covers 15-10-29

Pistons 31-10-29 Piston Rods 5-11-29 Connecting rods 21-10-29

Crank shaft 22-10-29 Thrust shaft 25-10-29 Intermediate shafts 31-10-29

Tube shaft - Screw shaft 29-10-29 30-10-29 Propeller 9-10-29 30-10-29

Stern tube 1-11-29 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 *LLOYDS NO 918 L.C.D. 22-10-29* Thrust shaft material *Steel* Identification Mark *LLOYDS NO 5657 L.C.D. 25-10-29*

Intermediate shafts, material *Steel* Identification Marks *LLOYDS NO 918 L.C.D. 22-10-29* Tube shaft, material *Steel* Identification Mark *LLOYDS NO 5228 L.C.D. 30-10-29*

Screw shaft, material *Steel* Identification Mark *LLOYDS NO 5357 L.C.D. 29-10-29* Steam Pipes, material *Steel* Test pressure 600 Date of Test 15-11-29

Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be used over 150°F. *no*

Have the requirements of the Rules for the use of oil as fuel been complied with *no*

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 *no*

Is this machinery duplicate of a previous case *no* If so, state name of vessel *Zitella*

General Remarks (State quality of workmanship, opinions as to class, &c.)  
*The materials and workmanship are good.  
The machinery has been constructed under special survey in accordance with the Rules. It has been sent to Bunkidland to be fitted in the vessel*

*A.B.  
2/12/29*

The amount of Entry Fee ... £ 5 : :  
Special *1/2* ... £ 62-2-5 : :  
Donkey Boiler Fee *1/2* ... £ 15-10-7 : :  
Travelling Expenses (if any) £ : :  
When applied for **3-DEC-1929**  
When received *1049/20* 1920

*Schdavis*  
Engineer Surveyor to Lloyd's Register of Shipping.  
TUE. 21 JAN 1930

Committee's Minute GLASGOW 3-DEC-1929  
Assigned *Defered*

*See 26. d.h. 17732*  
Lloyd's Register Foundation

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