

REPORT ON MACHINERY.

No. 40660
DEC 18 1920

Received at Office

Date of writing Report 6-12-20 When handed in at Local Office 6-12-20 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 3rd June 1919 Last Survey 27th Nov 1920
 Reg. Book. S.S. GALABANGKA (Number of Vents 64) Tons 6645 Gross 4155 Net
 on the S.S. GALABANGKA When built 1920
 Master Built at Glasgow By whom built Lithgow & Co
 Engines made at Glasgow By whom made Rowan & Co (No 735) when made 1920
 Boilers made at Rowan By whom made Rowan (No 735) when made 1920
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Section 28 675 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 28-46-77 Length of Stroke 54 Revs. per minute 85 Dia. of Screw shaft 15.5 as per rule 15.6 Material of Steel
 as fitted 17 screw shaft)
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
 in the propeller boss Yes If the liner is in more than one length are the joints burned No 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 _____ Length of stern bush 5-6
 Dia. of Tunnel shaft 14.2 as per rule 14.2 Dia. of Crank shaft journals 14.95 as per rule 15.4 Dia. of Crank pin 15.4 Size of Crank webs 7.29 Dia. of thrust shaft under
 collars 15.2 Dia. of screw 18-6 Pitch of Screw 15-6 No. of Blades 4 State whether moveable Yes Total surface 944
 No. of Feed pumps 2 Diameter of ditto 8 Stroke 2.4 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 8 Stroke 8.2 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 1) 9x13x12 duplex No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room (2) 3.5 Stokehold (2) 3.5 In Holds, &c. nos 1-2 & 4 holds, 2 deep tanks
and 2 coffer dams each 2 Suctions all 3.5 dia, Tunnel well (1) 3.5
 No. of Bilge Injections 1 sizes 9 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3.5
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None
 Are all connections with the sea direct on the skin of the ship Yes Are they 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 Discharge Pipes 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 are carried through the bunkers None How are they protected _____
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

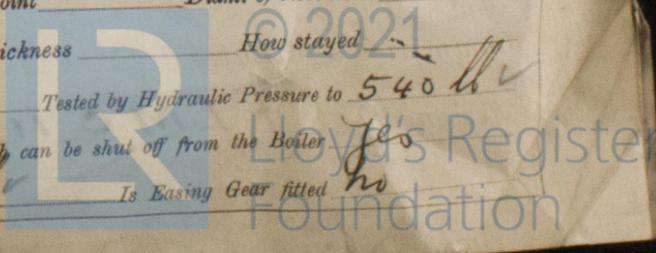
BOILERS, &c.—(Letter for record S) Manufacturers of Steel WATER TUBE See separate Rpt attached hereto
 Total Heating Surface of Boilers 10560 Is Forced Draft fitted Yes No. and Description of Boilers 4 Water Tube (Howden's)
 Working Pressure 180 lb Tested by hydraulic pressure to 320 lb Date of test 1-9-20 No. of Certificate 15462
 Can each boiler be worked separately Yes Area of fire grate in each boiler 45 No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 8.290 Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 23 Mean dia. of boilers _____ Length _____ Material of shell plates _____
 Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____
 long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____
 Size of compensating ring _____ No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____
 Length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 Pitch of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____
 Material of stays _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____
 Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____
 Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 Thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____
 thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
 Working pressure by rules _____ Steam dome: description of joint to shell _____ % of strength of joint _____
 Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____
 Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type Howden's Date of Approval of Plan 22.12.19 Tested by Hydraulic Pressure to 540 lb
 Date of Test 25.5.20 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve 2 Pressure to which each is adjusted 195 lb Is Easing Gear fitted No

If not, state whether, and when, one will be sent

As a Report also sent on the Hull of the Ship

W1175-0160



IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? *—*

SPARE GEAR. State the articles supplied:—

2 Top end bolts and nuts ✓ 2 bottom end bolts and nuts, 2 main bearing bolts and nuts, 6 Coupling bolts and nuts ✓ Set of jib and belge Pump Valves, Iron, bolts and nuts assorted and other articles.

The foregoing is a correct description,

David Rowan & Co Ltd

per Alex Sand Manufacturer.

Dates of Survey while building: During progress of work in shops -- } 1919 Jun 3 July 14 Aug 25 Sep 25 Oct 9 15 Nov 3 5 20 Dec 1 24 (1920) Jan 12 20 28 Feb 10 17 17 Mar 1 8 9 12 23 25
During erection on board vessel -- } Apr 2 19 21 22 May 4 13 25 26 27 31 June 3 4 8 10 29 31 July 2 5 6 7 13 Aug 11 16 20 30 Sep 1 6 7 15 Oct 18 22 Nov 4
Total No. of visits *64* Is the approved plan of main boiler forwarded herewith *no*

Dates of Examination of principal parts—Cylinders *9.10.19* Slides *9.10.19* Covers *1.12.19* Pistons *1.12.19* Rods *24.12.19*

Connecting rods *27.5.20* Crank shaft *1.9.20* Thrust shaft *30.3.20* Tunnel shafts *30.8.20* Screw shaft *27.5.20* Propeller *27.5.20*

Stern tube *18.5.20* Steam pipes tested *5.11.19 11.20* Engine and boiler seatings *9.6.20* Engines holding down bolts *7.10.20*

Completion of pumping arrangements *24.11.20* Boilers fixed *7.10.20* Engines tried under steam *9.11.19 27.11.20*

Completion of fitting sea connections *16.7.20* Stern tube *9.6.20* Screw shaft and propeller *16.7.20*

Main boiler safety valves adjusted *19.11.20* Thickness of adjusting washers *apt P P 32 S 32 St A P 32 S 32 7d P 16 S 32 St A P 16 S 32*

Material of Crank shaft *Steel* Identification Mark on Do. *LR 7513 T 1100 734* Material of Thrust shaft *Steel* Identification Mark on Do. *L 40108 735*

Material of Tunnel shafts *Steel* Identification Marks on Do. *(Sub below)* Material of Screw shafts *Steel* Identification Marks on Do. *4.12 1129 27.5.20*

Material of Steam Pipes *S.S. Steel* Test pressure *540 lb*

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

Have the requirements of Section 49 of the Rules been complied with *—*

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *S.S. "Salawati" (948 R.P. No 40416)*

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

*7538 1093 7539 3798 7528 7540
7216 7516 3897 734 1099 3796
TM 30.8.20. TM 30.8.20. TM 30.8.20. TM 30.8.20. TM 30.8.20. TM 30.8.20.*

The Engines and boilers have been built under Special Survey in accordance with the Rules and approved plans and have been seen working satisfactorily under Steam, materials and workmanship are good.

The Machinery is eligible, in our opinion, to be Classed + LMC 11-20

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 11.20 FD 4 Water Tube Boilers Subject to the Water Tube Boiler being surveyed annually.

J.P. 10/12/20
J.P. Murray
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 53 : 15 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *1.12.1920*
When received, *3.12.1920*

Committee's Minute *Glasgow 7-DEC 1920*

Assigned *+ LMC 1120*

J.P. CERTIFICATE WRITTEN *8/12/20*

