

REPORT ON MACHINERY

No. 40416

WED. OCT 16 1920

of writing Report 2.10.20 When handed in at Local Office 4.10.20 Port of Glasgow
 in Survey held at Glasgow Date, First Survey 14.7.1919 Last Survey 23.9.1920
 Book. on the SS SALAYATI (Number of Visits 59)

Water Built at Glasgow By whom built Lithgow & Co (No 738) Tons Gross 1552 Net 1552
 Engines made at Glasgow By whom made Rowan & Co (No 734) when made 1920
 Pumps made at Glasgow By whom made Rowan & Co (No 734) 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" x 46" x 77" Length of Stroke 54" Revs. per minute 85 Dia. of Screw shaft 15.52" Material of screw shaft Steel

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

the propeller boss Yes If the liner is in more than one length are the joints burned — 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 as per rule 14.24" as fitted 14.5" Dia. of Crank shaft journals as per rule 14.95" as fitted 15.4" Dia. of Crank pin 15.4" Size of Crank webs 9.4" x 29.4" 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 No Total surface 94 ft

No. of Feed pumps 2 Diameter of ditto 8" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 8" Stroke 8" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps (2) 8" x 24" (1) 9" x 13" x 12" Dia. No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room (2) 3 1/2" Strokehold 2-3 1/2" In Holds, &c. 1-2 1/4" Holds, 2 Deep Tanks 1/2" Copper Dams

each 2 Suctions all 3 1/2" Dia. Tunnel Well 1-2 1/2" No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"

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 Yes

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 Ship's Deck Report attached

BOILERS, &c.—(Letter for record S) Manufacturers of Steel WATER TUBE See Separate Report attached

Total Heating Surface of Boilers 10560 Is Forced Draft fitted Yes No. and Description of Boilers 4 Water Tube (Howdens)

Working Pressure 180 lb Tested by hydraulic pressure to 320 lb Date of test 17.8.20 No. of Certificate 15435

Can each boiler be worked separately Yes Area of fire grate in each boiler 45 ft No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 8.294 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 rivets plate 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 top Thickness of plates crown 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 Date of Approval of Plan 22.12.19 Tested by Hydraulic Pressure to 540 lb

Date of Test 30.4.20 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 205 lb Is Easing Gear fitted No

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:— 2 Top end both and nuts, 2 bottom end both and nuts, 2 main bearing both and nuts, 6 coupling both and nuts, Set of feed and bilge Pump Valves, Iron, both and nuts assortment and other articles

The foregoing is a correct description,

Dand Ruanbo Ltd

peracene Ltd

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1919 July 14 Aug 25 Sep 10 16 25 Oct 9 15 16 Nov 3 5 20 Dec 1 19 24 25 (1920) Jan 8 15 12 20 28 Feb 2 5 6 7 10 12 23 27
During erection on board vessel -- 1920 July 7 Aug 11 17 18 19 20 Sep 20 21 23
Total No. of visits 59

Is the approved plan of main boiler forwarded herewith

Yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 25.9.19 Slides 25.9.19 Covers 9.10.19 Pistons 5.11.19 Rods 5.11.19

Connecting rods 1.12.19 Crank shaft 15.1.20 Thrust shaft 30.3.20 Tunnel shafts 8.4.20 Screw shaft 31.3.20 Propeller 31.3.20

Stern tube 18.5.20 Steam pipes tested 10.6.20 5.7.20 Engine and boiler seatings Gek Engines holding down bolts 7.7.20

Completion of pumping arrangements 21.9.20 Boilers fixed 7.7.20 Engines tried under steam 20.9.20 23.9.20

Completion of fitting sea connections Gek Stern tube Gek Screw shaft and propeller Gek

Main boiler safety valves adjusted 20.12.19 21.9.20 Thickness of adjusting washers Gek Boilers 10.6.20 5.7.20 10.6.20 5.7.20 10.6.20 5.7.20 10.6.20 5.7.20

Material of Crank shaft Steel Identification Mark on Do. TM 15.1.20 Material of Thrust shaft Steel Identification Mark on Do. 7.5.3T

Material of Tunnel shafts Steel Identification Marks on Do. X Material of Screw shafts Steel Identification Marks on Do. 100.734

Material of Steam Pipes 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 No If so, state name of vessel

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

LR 7530 7543 T7541 T7526 7531
1122 3783 3843 3791 3861 3898
734 TM 8.4.20 TM 8.4.20 TM 8.4.20 TM 8.4.20 TM 8.4.20 TM 8.4.20

LR 7533 7521 7521 7521 7521 7521
1122 1124 1124 1124 1124 1124
31.3.20 JE 31.3.20 JE 31.3.20 JE 31.3.20 JE 31.3.20 JE 31.3.20 JE

The Engines and boilers have been constructed 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 9.20

It is submitted that this vessel is eligible for THE RECORD + LMC. 9.20 FD.

4. Watertube boilers Subject to the Water Tube Boilers being surveyed annually.

The amount of Entry Fee ... £ 3 : 0 : When applied for, 5-10-1920.

Special ... £ 53 : 15 : When received, 7/10/20.

Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ : :

Committee's Minute Assigned + L.M.C 9.20. 7.2.

MASTERS' CERT. WRITTEN 6.10.20

Suit of

GLASGOW.

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Engineer Surveyor to Lloyd's Register of Shipping.

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