

REPORT ON MACHINERY.

No. 27997
SAT. DEC. 19 1920

Received at London Office

Date of writing Report 19 When handed in at Local Office 17 DEC 1920 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 13 May 20 Last Survey 17 Dec 17 1920
 Reg. Book. on the new steel S/S "STONEWALL" (Number of Visits 36)
 Master W. Zollic Built at Sunderland By whom built Barham & Sons Ltd (S/S No 253) When built 1920
 Engines made at Sunderland By whom made J. Dickinson & Sons Ltd (No 837) when made 1920
 Boilers made at Sunderland By whom made J. Dickinson & Sons Ltd (No 837) when made 1920
 Registered Horse Power Owners Garland Steamship Corporation Port belonging to New York
 Nom. Horse Power as per Section 28 476 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 24 1/2 - 45 - 75 Length of Stroke 48 Revs. per minute 68 Dia. of Screw shaft as per rule 14.87 Material of screw shaft as fitted 15 1/8
 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 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 Length of stern bush 5'-3"
 Dia. of Tunnel shaft as per rule 13.505 Dia. of Crank shaft journals as per rule 14.18 Dia. of Crank pin 14 1/2 Size of Crank web 9 1/2 x 2.2 Dia. of thrust shaft under collars 14 1/2 Dia. of screw 17.9 Pitch of Screw 16.9 No. of Blades 4 State whether moceable no Total surface 990 ft
 No. of Feed pumps 2 Diameter of ditto 7 Stroke 24 Can one be overhauled while the other is at work yes (Weirs) steam cylinder 9 1/2
 No. of Bilge pumps 2 Diameter of ditto 5 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 7 1/2 & 4 1/2 x 10. 9 & 10 1/2 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 @ 3 1/2 In Holds, &c. No 1 hold - 2 @ 3 1/2. No 2 hold - 2 @ 3 1/2
 No. of Bilge Injections 1 sizes 7 Connected to condenser, or to circulating pump b.p. Is a separate Donkey Suction fitted in Engine room & size yes, 4"
 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 above
 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 forward hold suction How are they protected under limber boards
 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 stop platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel John Spence & Sons Ltd
 Total Heating Surface of Boilers 8055 sq ft Is Forced Draft fitted no No. and Description of Boilers three single ended marine
 Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 2-9-20, 10-20 No. of Certificate 371A 3724
 Can each boiler be worked separately yes Area of fire grate in each boiler 68 sq ft No. and Description of Safety Valves to each boiler two direct spring Area of each valve 8.290 Pressure to which they are adjusted 185 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 8'-0" Ext. dia. of boilers 16'-1 1/2" Length 11'-10 1/2" Material of shell plates steel
 Thickness 1 9/32 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR
 long. seams DBS, TR Diameter of rivet holes in long. seams 1 3/8 Pitch of rivets 9 5/16 Lap of plates or width of butt straps 1-8 1/8
 Per centages of strength of longitudinal joint rivets 92.6 Working pressure of shell by rules 181 Size of manhole in shell 16 x 12
 Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 4'-2"
 Length of plain part top 19 Thickness of plates crown 19 Description of longitudinal joint welded No. of strengthening rings
 bottom 32 Working pressure of furnace by the rules 189 Combustion chamber plates: Material steel Thickness: Sides 23/32 Back 11/16 Top 23/32 Bottom 23/32
 Pitch of stays to ditto: Sides 11 1/8 x 7 1/2 Back 10 5/8 x 8 3/4 Top 10 x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 182
 Material of stays steel Area at smallest part 2.030 Area supported by each stay 900 Working pressure by rules 203 End plates in steam space:
 Material steel Thickness 1 3/16 Pitch of stays 20 3/8 x 18 How are stays secured BN & W Working pressure by rules 180 Material of stays steel
 Area at smallest part 6.4920 Area supported by each stay 366 Working pressure by rules 184 Material of Front plates at bottom steel
 Thickness 7/8 Material of Lower back plate steel Thickness 27/32 Greatest pitch of stays 13 x 10 1/2 Working pressure of plate by rules 181
 Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 7/8 Back 7/8 Mean pitch of stays 11 1/4
 Pitch across wide water spaces 14 1/4 (5/8) Working pressures by rules 248 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 20 1/8 x 8 3/8 Length as per rule 37 15/32 Distance apart 9" Number and pitch of stays in each 3 @ 10"
 Working pressure by rules 181 Steam dome: description of joint to shell none % 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 Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

003605-003610-0173

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IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two connecting rod top and bottom end bolts and two main bearing bolts, one set of coupling bolts, one set of feed and lift pump valves, iron and bolts of various sizes, one screw shaft and one propeller.

The foregoing is a correct description,

John Dickinson & Sons, Limited.

John Dickinson

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1920. May 13 Jun 11, 14, 29, Jul 5, 7, 8, 14, 15, 26, Aug 3, 11, 18, 19, 26, Sep 2, 16, 17, 21, 22, Oct 5, 6, 15, 26, Nov 2, 9, 22, 24, Dec 1, 2, 6, 8, 10, 14, 17, 26. Total No. of visits 36.

Is the approved plan of main boiler forwarded herewith *yes*
" " " donkey " " " *yes*

Dates of Examination of principal parts—Cylinders 26-7-20 Slides 17-9-20 Covers 17-9-20 Pistons 26-8-20 Rods 26-8-20

Connecting rods 15-7-20 Crank shaft 16-9-20 Thrust shaft 16-9-20 Tunnel shafts 16-9-20 Screw shaft 16-9-20 Propeller 21-9-20

Stern tube 21-9-20 Steam pipes tested 14-7-20 Engine and boiler seatings 24-11-20 Engines holding down bolts 8-12-20

Completion of pumping arrangements 17-12-20 Boilers fixed 8-12-20 Engines tried under steam 14-12-20

Completion of fitting sea connections 24-11-20 Stern tube 24-11-20 Screw shaft and propeller 1-12-20

Main boiler safety valves adjusted 14-12-20 Thickness of adjusting washers Port No. F 3/4, A 6; Bent No. P 2, S 3/2; Stand No. F 7/8

Material of Crank shaft *J. Steel* Identification Mark on Do. *LLOYDS* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYDS*

Material of Tunnel shafts *J. Steel* Identification Marks on Do. *LLOYDS* Material of Screw shafts *Snaph Iron* Identification Marks on Do. *LLOYDS*

Material of Steam Pipes *Lapwelded with iron & solid drawn copper* Test pressure *540 lbs & 400 lbs respectively*

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 "Suevian" (Sld Rpt. No. 279)*

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 and is eligible in my opinion for classification and the record + LMC 12, 20

It is submitted that this vessel is eligible for THE RECORD. + LMC. 12. 20.

Roll
JIM 20/12/20

Certificate (if required) to be sent to

The amount of Entry Fee ... £ 3 : - : When applied for, 15.12.1920
Special ... £ 43 : 16 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : When received, 17 DEC 1920

S. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 21 DEC 1920

Assigned

+ LMC. 12. 20

CERTIFICATE WRITTEN.



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