

REPORT ON MACHINERY.

No. 31933

Received at London Office TUE. JUL. 6 1920

4. Writing Report 19 When handed in at Local Office 5/7/20 Port of Hull.
 Survey held at Hull. Date, First Survey Dec 5/18 Last Survey Jun 4th 1920
 on the "ST. THOMAS ALEXANDRA" (Number of Visits 60) Tons { Gross 290 Net 127
 Built at Beverley By whom built Coost. W. W. L. Samuel When built 1920.
 By whom made Amos & Smith Ltd No. 3102 when made 1920.
 By whom made Amos & Smith Ltd No. 3072 when made
 Owners The Admiralty Port belonging to
 Horse Power as per Section 28 87.86 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple-expansion No. of Cylinders 3 No. of Cranks 3
 of Cylinders 12 1/2", 21", 35" Length of Stroke 26" Revs. per minute 109 Dia. of Screw shaft 7.95" as per rule 7.5" as fitted 7.5" Material of screw shaft Steel
 Is the after end of the liner made water tight
 Is the propeller boss If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part
 Is the space between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two
 shafts are fitted, is the shaft lapped or protected between the liners Length of stern bush 34 1/2"
 Dia. of Tunnel shaft 6.58" as per rule 6.95" as fitted 6.91" Dia. of Crank shaft journals 7 1/8" as fitted 7 1/8" Dia. of Crank pin 7 1/8" Size of Crank webs 4 1/2" x 4 1/2" Dia. of thrust shaft under
 Dia. of screw 7 1/8" Dia. of screw 9-6" Pitch of Screw 11 1/2" No. of Blades 4 State whether moveable no Total surface 36.5 sq ft
 of Feed pumps 1 Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work
 of Bilge pumps 1 Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work
 of Donkey Engines One Sizes of Pumps 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 3-2" Direct Forward aft & aft In Holds, &c. 3-2" Forehold, slushwell
 of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2" ejector
 Are 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
 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 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
 How are they protected Wood casing
 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 Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S. 1590) Manufacturers of Steel John Spencer & Son I.S.B.
 Total Heating Surface of Boilers 1542 sq ft Is Forced Draft fitted no No. and Description of Boilers One Single-ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 29.10.19 No. of Certificate 3402
 Can each boiler be worked separately Area of fire grate in each boiler 48.75 sq ft No. and Description of Safety Valves to
 boiler Two-spring Area of each valve 4.9 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 11" Mean dia. of boilers 16.2" Length 10-6 1/2" Material of shell plates S.
 Thickness 1/32" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 10R.
 g. seams TR.D.B.S. Diameter of rivet holes in long. seams 1 5/32" Pitch of rivets 8" Lap of plates or width of butt straps 17"
 Percentages of strength of longitudinal joint rivets 89.3 plate 85.5 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"
 No. of compensating ring 9 x 1/32 No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 40 9/16"
 Length of plain part top 8 1/2" crown 25" Description of longitudinal joint welded No. of strengthening rings
 bottom 76" Thickness of plates bottom 32" Thickness: Sides 1/16" Back 3/32" Top 1/16" Bottom 1/8"
 Working pressure of furnace by the rules 188. Combustion chamber plates: Material S. Thickness: Sides 1/16" Back 3/32" Top 1/16" Bottom 1/8"
 Pitch of stays to ditto: Sides 9 1/2" x 9 3/8" Back 9 x 9" Top 9 1/2" x 9 1/4" stays are fitted with nuts or riveted heads nuts Working pressure by rules 182
 Material of stays S. Area at smallest part 2.07 sq in Area supported by each stay 90.25 Working pressure by rules 206. End plates in steam space:
 Material S. Thickness 1 1/16" Pitch of stays 17 1/8" x 17" How are stays secured ON TW Working pressure by rules 181. Material of stays S.
 Area at smallest part 6.10 sq in Area supported by each stay 295 sq in Working pressure by rules 215. Material of Front plates at bottom S.
 Thickness 3/32" Material of Lower back plate S. Thickness 15/16" Greatest pitch of stays 1 1/4" x 9 Working pressure of plate by rules 219.
 Diameter of tubes 3 1/2" Pitch of tubes 5 x 4 1/4" Material of tube plates S. Thickness: Front 3/32" Back 7/8" Mean pitch of stays 10"
 Pitch across wide water spaces 14" Working pressures by rules 184 lbs Girders to Chamber tops: Material S. Depth and
 thickness of girder at centre 8 1/2" x 1 3/4" Length as per rule 32" Distance apart 9 1/2" Number and pitch of stays in each Two @ 9 1/2"
 Working pressure by rules 197. 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
 Visits 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

002498-002505-0217



IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts & nuts, one set of coupling bolts and nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts, nuts, etc.*

The foregoing is a correct description,

J. D. Robinson

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *1918: Jan DEC 5 11 20 1919 Jan 20 Mar 6 13 Apr 10 12 16 24 25 27 29 30 May 10 24 Jun 16 18*
{ During erection on board vessel -- } *29 Jul 2 3 9 10 13 16 22 23 30 Aug 12 14 16 21 23 25 29 Sep 2 3 9 10 17 25 26 Oct 2 6 8 14 17 24 29*
{ Total No. of visits } *Nov 3 7 11 13 Dec 2 9 1920 Jan 04 Mar 8 11 Jun 01*

Is the approved plan of main boiler forwarded herewith *sent Paris*

Dates of Examination of principal parts—Cylinders *17.9.20*. Slides *17.9.20*. Covers *17.9.20*. Pistons *2.10.19*. Rods *2.10.19*. Connecting rods *2.10.19*. Crank shaft *17.10.19*. Thrust shaft *24.10.19*. Tunnel shafts . Screw shaft *9.7.19*. Propeller *9.7.19*. Stern tube *9.7.19*. Steam pipes tested *6.3.20*. Engine and boiler seatings *30.7.19*. Engines holding down bolts *8.3.20*. Completion of pumping arrangements *4.6.20*. Boilers fixed *8.3.20*. Engines tried under steam *4.6.20*. Completion of fitting sea connections *30.7.19*. Stern tube *30.7.19*. Screw shaft and propeller *30.7.19*. Main boiler safety valves adjusted *4/6/20*. Thickness of adjusting washers *P 3/8 S 5/16*. Material of Crank shaft *S*. Identification Mark on Do. *2393*. Material of Thrust shaft *S*. Identification Mark on Do. *2261*. Material of Tunnel shafts . Identification Marks on Do. . Material of Screw shafts *S*. Identification Marks on Do. *2362*. Material of Steam Pipes *Steel*. Test pressure *54 lbs hyd. pres.*

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 Section 49 of the Rules been complied with *yes*.

Is this machinery duplicate of a previous case *yes*. If so, state name of vessel *George Adpell*.

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & boilers of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The Boiler tested by hydraulic pressure and with the engines secured on board & tested under steam they are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of + LMC 6.20 in the Register book.*

It is submitted that this vessel is eligible for THE RECORD + LMC 6.20.

J.M. 6/7/20

The amount of Entry Fee ... £ *2* : : :
Special ... £ *26* : *2* : : :
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : :
When applied for, *30/6/20*
When received, *3-7-20*

J. G. Mackillop
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. JUL. 9 1920

Assigned

+ LMC 6.20

MACHINERY CERT. WRITTEN.



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Lloyd's Register Foundation

Certificate (if required) to be sent to Hull

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