

REPORT ON MACHINERY.

No. 29910

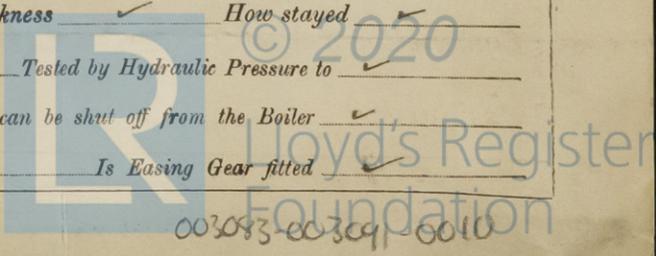
Received at London Office

Date of writing Report 18. 4. 1917 When handed in at Local Office 18. 4. 1917 Port of Hull
 No. in Survey held at Hull Date, First Survey Apr 6/16 Last Survey Apr 14th 1917
 Reg. Book 32 on the Steel S.S. "Bellevia" (Number of Visits 56)
 Master Burley Built at Burley By whom built Brook, Walton & Gemmill Tons } Gross 261
 Engines made at Hull By whom made Amos & Smith L^{ds} No. 2820 when made 1917 Net 102
 Boilers made at Hull By whom made Amos & Smith L^{ds} when made 1917
 Registered Horse Power 74 Owners Standard Steam Fishing Co. Port belonging to Grimsby
 Nom. Horse Power as per Section 28 74 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/2" 21 1/2" 35 1/4" Length of Stroke 24" Revs. per minute as per rule 7.16" Material of } Iron
 Dia. of Screw shaft as fitted 7 1/2" 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 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 34"
 Dia. of Tunnel shaft as per rule 6.4" Dia. of Crank shaft journals as per rule 6.72" Dia. of Crank pin 7" Size of Crank webs 13 1/4" 4 1/2" Dia. of thrust shaft under
 collars 6 7/8" Dia. of screw 8.9" Pitch of Screw 11.0" No. of Blades 4 State whether moceable No Total surface 29 sq ft
 No. of Feed pumps 1 Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work
 No. of Bilge pumps 1 Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work
 No. of Donkey Engines 2 Sizes of Pumps 6 1/2" 4 1/4" 6" 4 1/2" 3" 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 — 2" suction In Holds, &c. 1 — 2" suction to forecabin 1 — 2" main
fish room 1 — 2" to main slush well, 1 — 2" to spare slush well
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2" injector
 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 4 — 2" hold and slush well pipes 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.) Manufacturers of Steel John Spencer & Sons L^{ds}
 Total Heating Surface of Boilers 1267 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 24.1.17 No. of Certificate 3186
 Can each boiler be worked separately Area of fire grate in each boiler 37.6 sq ft No. and Description of Safety Valves to
 each boiler 2 spring loaded Area of each valve 4.9" Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 12.6" Length 10.3 3/32" Material of shell plates S.
 Thickness 1 1/32" Range of tensile strength 28/32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.
 long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7" Lap of plates or width of butt straps 15 1/16"
 Per centages of strength of longitudinal joint rivets 91.2 Working pressure of shell by rules 180 Size of manhole in shell 16" x 12"
plate 84.82
 Size of compensating ring 30" x 40" x 1 1/2" No. and Description of Furnaces in each boiler 2 plain Material S. Outside diameter 3.8 5/8"
 Length of plain part top 7.8" Thickness of plates bottom 1 1/32" Description of longitudinal joint welded No. of strengthening rings
 Working pressure of furnace by the rules 185 Combustion chamber plates: Material S. Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 3/4"
 Pitch of stays to ditto: Sides 10.7" Back 9 1/2" 9" Top 9 1/2" 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 191
 Material of stays S. Area at smallest part 2.066 Area supported by each stay 85.5 Working pressure by rules 217 End plates in steam space:
 Material S. Thickness 1 1/32" Pitch of stays 16 1/4" 16 1/2" How are stays secured seamed nuts Working pressure by rules 187.5 Material of stays S.
 Area at smallest part 5.055 Area supported by each stay 268 Working pressure by rules 196 Material of Front plates at bottom S.
 Thickness 3/32" Material of Lower back plate S. Thickness 15" Greatest pitch of stays 13 3/4" 9 1/2" Working pressure of plate by rules 217
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" 4 1/8" Material of tube plates S. Thickness: Front 3/32" Back 27" Mean pitch of stays 11.25
 Pitch across wide water spaces 13 3/4" Working pressures by rules 190 Girders to Chamber tops: Material S. Depth and
 thickness of girder at centre 8 3/8" 9 1/2" 1 1/2" Length as per rule 2.9" Distance apart 8 1/2" 9 1/2" Number and pitch of stays in each 3 - 7"
 Working pressure by rules 180 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 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



003083-003091-0010

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 and 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 and nuts etc.*

The foregoing is a correct description,
FOR AMOS & SMITH LTD.

Manufacturer.

Secretary.

Dates of Survey while building { During progress of work in shops -- } *1916: - Apr 6. 7. 11. 13. 18. 29 May 6. 13. 22. 27 Jun 3. 10. 17. 24. Jul 3. 22. 31. Aug 5. 12. 19. 26 Sep 29.*
{ During erection on board vessel - - - } *Oct. 14. 23. 29. Nov 6. 13. 17. 22. 27 Dec 1. 4. 9. 11. 16. 19. 28 1917: - Jan 2. 5. 8. 13. 18. 24. 29. Feb 1. 6.*
Total No. of visits *56*

Is the approved plan of main boiler forwarded herewith *Yes* ✓

" " " *Donkey* " " " ✓

Dates of Examination of principal parts—Cylinders *27.11.16* Slides *9.12.16* Covers *27.11.16* Pistons *1.12.16* Rods *1.12.16*
Connecting rods *9.12.16* Crank shaft *2.1.17* Thrust shaft *2.1.17* Tunnel shafts ✓ Screw shaft *29.9.16* Propeller *29.9.16*
Stern tube *29.9.16* Steam pipes tested *13.2.17* Engine and boiler seatings *29.9.16* Engines holding down bolts *1.2.17*
Completion of pumping arrangements *14.4.17* Boilers fixed *6.2.17* Engines tried under steam *10.3.17*
Completion of fitting sea connections *29.9.16* Stern tube *29.9.16* Screw shaft and propeller *29.9.16*
Main boiler safety valves adjusted *10.3.17* Thickness of adjusting washers *P. 3/8" S. 5/16"*
Material of Crank shaft *S.* Identification Mark on Do. *2.1.17 G.P. 1694* Material of Thrust shaft *Iron* Identification Mark on Do. *2.1.17 G.P. 1695*
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *29.9.16 G.P. 1670*
Material of Steam Pipes *S.D. Copper* ✓ Test pressure *400 lbs.* ✓

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 *"Simpson"* ✓

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

The machinery of this vessel has been constructed under special survey in accordance with the approved plans and the rules of this Society; the material and workmanship are good; the boiler and steam pipes have been tested as above by hydraulic pressure and found sound and good. The machinery has been properly fitted and secured on board and on completion tried under steam and found satisfactory. The safety valves have been adjusted under steam and tested for accumulation which did not exceed 185 lbs. per sq. inch.

In my opinion the vessel is eligible for the record I.M.C. 4.17

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4.17.

J.W.D.

Geo. Allan
20/4/17
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 1 : - :
Special ... £ 11 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 2 :
When applied for, *19.4.1917*
When received, *30.6.1917*

Committee's Minute *TUE. 24 APR. 1917*

Assigned *+ L.M.C. 4.17*

MACHINERY CERTIFICATE WRITTEN



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Certificate (if required) to be sent to Hull

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