

REPORT ON MACHINERY.

No. 29867
WFO 29 MAR 1917

Received at London Office

Date of writing Report 19 17 When handed in at Local Office 27. 3. 17 Port of Hull
 No. in Survey held at Hull Date, First Survey Feb 4/16 Last Survey Mar 14th 1917
 Reg. Book. 51 on the Shelley "Simpson" (Number of Visits 57)
 Master Beverley Built at Beverley By whom built book, Nelson & Lemell When built 1917
 Engines made at Hull By whom made Messrs Amos & Smith Ltd No. 2819. when made 1917
 Boilers made at Hull By whom made Messrs Amos & Smith Ltd when made 1917
 Registered Horse Power Owners Standard Steam Fishing Co. Port belonging to Grimby
 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 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" as fitted 6 3/4" Dia. of Crank shaft journals as per rule 6.72" as fitted 7" Dia. of Crank pin 7" Size of Crank webs 3 1/2" 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 moccable no Total surface 298
 No. of Feed pumps 1 Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work
 No. of Bilge pumps 1 Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work
 No. of Donkey Engines 2 Sizes of Pumps 6 1/2" 4 1/2" 6" 6" 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" ejector
 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" Hall 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. Ltd.
 Total Heating Surface of Boilers 1267 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 2.1.17. No. of Certificate 3184
 Can each boiler be worked separately Area of fire grate in each boiler 37.6 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 3/2" Material of shell plates S
 Thickness 1 1/2" 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 plate 84.82 Working pressure of shell by rules 180 Size of manhole in shell 16" 12"
 Size of compensating ring 30" 40" 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" bottom 7.2 1/2" Thickness of plates crown 1 1/16" bottom 1 1/16" 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 1/16" Back 1 1/16" Top 1 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 1/2" Pitch of stays 16 1/4" 16 1/2" How are stays secured 9 washers 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 1/32" Material of Lower back plate S Thickness 1 5/16" Greatest pitch of stays 13 1/4" 9 1/2" Working pressure of plate by rules 217
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/4" 4 1/8" Material of tube plates S Thickness: Front 3 1/32" Back 2 7/32" Mean pitch of stays 11.25"
 Pitch across wide water spaces 13 1/4" Working pressures by rules 190 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 1/2" 9 1/2" 1 1/4" 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

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.

H. P. Hutchins

Dates of Survey while building: During progress of work in shops -- 1916: Feb 4, 25, Mar 9, 30, Apr 3, 12, 13, 18, 29, May 0, 13, 22, 27, Jun 3, 10, 17, 24, Jul 3, 15, 22, 31, Aug 5, 12, 19, 26, 30, 31, Oct 7, 14, 23, 28, Nov 0, 13, 14, 17, 22, 27, Dec 1, 4, 5, 9, 11, 19, 1917: Jan 2, 5, 8, 15, 16, 23, 25, 30, Feb 6, 10, 22, Mar 6, 13, 14. Total No. of visits 57 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 14.11.16 Slides 27.11.16 Covers 14.11.16 Pistons 27.11.16 Rods 1.12.16 Connecting rods 9.12.16 Crank shaft 5.12.16 Thrust shaft 9.12.16 Tunnel shafts ✓ Screw shaft 30.8.16 Propeller 30.8.16 Stern tube 31.8.16 Steam pipes tested 25.1.17. Engine and boiler seatings 31.8.16 Engines holding down bolts 15.1.17 Completion of pumping arrangements 14.3.17 Boilers fixed 15.1.17 Engines tried under steam 10.2.17 Completion of fitting sea connections 31.8.16 Stern tube 31.8.16 Screw shaft and propeller 31.8.16 Main boiler safety valves adjusted 10.2.17 Thickness of adjusting washers P. 5/16 S. 5/16

Material of Crank shaft Iron Identification Mark on Do. 5-12-16 GA Material of Thrust shaft Iron Identification Mark on Do. 1692 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1665 Material of Steam Pipes S. B. 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 "Susarion"

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. 3-17

It is submitted that this vessel is eligible for THE RECORD. + LMC 3.17.

JWD *9/17*
Geo. Allan
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 1 : - : } When applied for, 27.3.1917
Special ... £ 11 : 2 : }
Donkey Boiler Fee ... £ : : }
Travelling Expenses (if any) £ : 2 : } When received, 31.3.1917

Committee's Minute FRI 30 MAR. 1917
Assigned + L.M.C. 3.17

MACHINERY CERTIFICATE WRITTEN

