

REPORT ON MACHINERY.

No. 30,006

Received at London Office 20 JUN 1917

Date of writing Report 18/6/17 When handed in at Local Office 17 Port of Hull
 No. in Survey held at Hull Date, First Survey 31-7-16 Last Survey 9-6-1917
 Reg. Book 16 on the Steam Trawler "Okino." (Number of Visits 34)
 Master Built at Selby By whom built Cochrane & Sons Ltd. When built 1917
 Engines made at Hull By whom made Amos & Smith Ltd. No. 2836 when made 1917.
 Boilers made at Hull By whom made Amos & Smith Ltd. when made 1917.
 Registered Horse Power Owners H. L. Taylor & H. P. Hopwood Port belonging to Gimsby
 Nom. Horse Power as per Section 28 89. 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 13 1/2 - 22 1/2 - 37 Length of Stroke 24 Revs. per minute 116 Dia. of Screw shaft as per rule 7.47 as fitted 8 Material of screw shaft Iron
 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 36"
 Dia. of Tunnel shaft as per rule 6.75 as fitted 7.8 Dia. of Crank shaft journals as per rule 7.08 as fitted 7.8 Dia. of Crank pin 7 1/2 Size of Crank webs 4 3/4 - 4 1/2 Dia. of thrust shaft under
 collars 7 1/2 Dia. of screw 9.0 Pitch of Screw 11.6 No. of Blades 4 State whether moveable Total surface 31.5
 No. of Feed pumps 1 Diameter of ditto 2 7/8 Stroke 12 Can one be overhauled while the other is at work 67 S.H.P.
 No. of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work
 No. of Donkey Engines 2 Sizes of Pumps 6.3 - 6.4 - 6.4 - 6.6 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" to
 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 Ltd.
 Total Heating Surface of Boilers 1565 sq. ft. Forced Draft fitted No. and Description of Boilers one single ended
 Working Pressure 185 lbs. Tested by hydraulic pressure to 370 lbs. Date of test 9.5.17 No. of Certificate 3212
 Can each boiler be worked separately Area of fire grate in each boiler 48 sq. ft. No. and Description of Safety Valves to
 each boiler 2 spring loaded Area of each valve 5.94 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 8" Mean dia. of boilers 13.6" Length 10.6" Material of shell plates S.
 Thickness 1 1/8" 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 8 1/4 Lap of plates or width of butt straps 17 1/8"
 Per centages of strength of longitudinal joint rivets 87.8 plate 85.1 Working pressure of shell by rules 187 Size of manhole in shell 16" x 12"
 Size of compensating ring 40" x 30" x 1 1/8" No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 3' x 3 1/2"
 Length of plain part top 80 3/4" bottom 80 3/4" Thickness of plates crown 25" bottom 32" Description of longitudinal joint Welded No. of strengthening rings
 Working pressure of furnace by the rules 192 Combustion chamber plates: Material S. Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 1 1/16"
 Pitch of stays to ditto: Sides 9.8 1/4" Back 8 1/8" x 9 3/4" Top 10.7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 203
 Material of stays S. Area at smallest part 1.76 Area supported by each stay 74.2 Working pressure by rules 189 End plates in steam space:
 Material S. Thickness 1 3/32" Pitch of stays 17 1/2" x 17 1/2" How are stays secured washers Working pressure by rules 185 Material of stays S.
 Area at smallest part 6.10 Area supported by each stay 306.25 Working pressure by rules 207 Material of Front plates at bottom S.
 Thickness 1 1/4" Material of Lower back plate S. Thickness 1 5/16" Greatest pitch of stays 14 5/8" x 8 1/2" Working pressure of plate by rules 212
 Diameter of tubes 3 1/2" Pitch of tubes 4 7/8" x 4 1/4" Material of tube plates S. Thickness: Front 1 1/4" Back 3/4" Mean pitch of stays 9 3/4" x 9 1/2"
 Pitch across wide water spaces 14 5/8" Working pressures by rules 185 Girders to Chamber tops: Material S. Depth and
 thickness of girder at centre 9 3/4" x 1 3/4" Length as per rule 2.10 3/32 Distance apart 10" Number and pitch of stays in each 3' x 7 1/2"
 Working pressure by rules 194 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.

S. J. Robinson Secretary.

Dates of Survey while building: During progress of work in shops - 1916 - Jul 31, Aug 5, 10, 11, 19, 26, 1917: Jan 23, Feb 5, 10, 16, 27, Mar 6, 15, 17, 28, 31, Apr 2, 16, 19; During erection on board vessel - 28, 30, May 5, 7, 9, 12, 15, 17, 18, 21, 26, 31, Jun 5, 7, 9; Total No. of visits 34

Is the approved plan of main boiler forwarded herewith Yes ✓

Is the approved plan of donkey boiler forwarded herewith Yes ✓

Dates of Examination of principal parts—Cylinders 17.3.17 Slides 28.3.17 Covers 17.3.17 Pistons 28.3.17 Rods 19.4.17 Connecting rods 5.5.17 Crank shaft 28.4.17 Thrust shaft 28.4.17 Tunnel shafts ✓ Screw shaft 5.8.16 Propeller 5.8.16 Stern tube 5.8.16 Steam pipes tested 21.5.17 Engine and boiler seatings 10.8.16 Engines holding down bolts 15.5.17 Completion of pumping arrangements 9.6.17 Boilers fixed 15.5.17 Engines tried under steam 5.6.17 Completion of fitting sea connections 10.8.16 Stern tube 10.8.16 Screw shaft and propeller 10.8.16 Main boiler safety valves adjusted 5.6.17 Thickness of adjusting washers P. 1/32 S. 3/8 20.4.17 Material of Crank shaft L.F.S. Identification Mark on Do. 1807GA Material of Thrust shaft Iron Identification Mark on Do. 1801GA 31.3.17 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1658GA 5.8.16 Material of Steam Pipes S.D. Copper ✓ Test pressure 400 lbs. ✓ 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 Yes 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.)

The machinery of this vessel has been constructed under special survey, in accordance with the approved plans and the rules of this Society; the materials 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 190 lbs. per sq. inch.

In my opinion the vessel is eligible for the record L.M.C. 6.17.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6.17.

Geo. Allan Engineer Surveyor to Lloyd's Register of Shipping.

Table with columns for fee type (Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses), amount (£), and dates (When applied for, When received).

Committee's Minute Assigned

FRI. 22 JUN. 1917

+ L.M.C. 6.17

MACHINERY CERTIFICATE WRITTEN



Vertical text on the left margin: Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minutes.