

REPORT ON MACHINERY.

No. 29849

Date of writing Report 10 When handed in at Local Office 1/3/17 Port of Hull
 No. in Survey held at Hull Date, First Survey Jul. 9/15 Last Survey Feb 26-1917
 Reg. Book. (Number of Vessels 57)
 Tons Gross 306 Net 121
 Master Built at Beverley By whom built Cook, Welton & Gemmell When built 1917
 Engines made at Hull By whom made Amos & Smith L^{td} No. 2791. when made 1917.
 Boilers made at Hull By whom made Amos & Smith L^{td} when made 1917.
 Registered Horse Power Owners Standard Steam Fishing Co. Port belonging to Grimsby
 Nom. Horse Power as per Section 28 89. 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 13½" - 22½" - 37" Length of Stroke 24" Revs. per minute 7.49 Dia. of Screw shaft as per rule 7.49 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 3' 0"
 Dia. of Tunnel shaft as per rule 6.75 as fitted 7½" Dia. of Crank shaft journals as per rule 7.08 as fitted 7½" Dia. of Crank pin 7½" Size of Crank webs 4½" - 14½" Dia. of thrust shaft under collars 7½" Dia. of screw 9' 0" Pitch of Screw 11' 0" No. of Blades 4 State whether moveable No Total surface 29.5 ft
 No. of Feed pumps 1 Diameter of ditto 2½" Stroke 12" Can one be overhauled while the other is at work
 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 6½" - 4½" - 6" & 6" - 3" - 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 - 2" Suctions 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 The Steel Co. of Scotland
 Total Heating Surface of Boilers 1595 ft Is Forced Draft fitted no No. and Description of Boilers One single ended
 Working Pressure 185 lbs. Tested by hydraulic pressure to 370 lbs. Date of test 21.11.16 No. of Certificate 3177.
 Can each boiler be worked separately Area of fire grate in each boiler 49.5 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 1½" 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 1¾" Pitch of rivets 8" Lap of plates or width of butt straps 17½"
 Per centages of strength of longitudinal joint rivets 91.5 plate 85.1 Working pressure of shell by rules 185 Size of manhole in shell 16" - 12"
 Size of compensating ring 40" - 30" - 1½" No. and Description of Furnaces in each boiler 3 Plain Material S. Outside diameter 39½"
 Length of plain part top 79½" Thickness of plates crown 4.9 bottom 6.4 Description of longitudinal joint welded No. of strengthening rings
 Working pressure of furnace by the rules 191 lbs. Combustion chamber plates: Material S. Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 11/16"
 Pitch of stays to ditto: Sides 9½" - 7½" Back 9" - 9½" Top 10" - 8½" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 189.
 Material of stays S. Area at smallest part 2.066 Area supported by each stay 85" Working pressure by rules 219 End plates in steam space: Material S. Thickness 1½" Pitch of stays 17" - 15" How are stays secured secured with washers Working pressure by rules 196 Material of stays S.
 Area at smallest part 6.10 Area supported by each stay 253" Working pressure by rules 249 Material of Front plates at bottom S.
 Thickness 1" Material of Lower back plate S. Thickness 15/16" Greatest pitch of stays 14½" Working pressure of plate by rules 212
 Diameter of tubes 3½" Pitch of tubes 4½" - 4½" Material of tube plates S. Thickness: Front 1" Back 3/32" Mean pitch of stays 9¾" - 9"
 Pitch across wide water spaces 14½" Working pressures by rules 189 Girders to Chamber tops: Material S. Depth and thickness of girder at centre 9½" - 1¾" Length as per rule 2.10 Distance apart 10" Number and pitch of stays in each 3 - 8½"
 Working pressure by rules 204 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

UPERHEATER. 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

W105-0053

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 pumps 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, 1916~~

Dates of Survey while building	During progress of work in shops - -	1915. Jul 9. Oct 19 Nov 12 Feb 3 Mar 30 Apr 13. 18. 29 May 7. 13. 27 Jun 3. 10. 17. 24 Jul 2. 3. 8. 11.
	During erection on board vessel - -	22. 31 Aug 5. 12. 19. 26 Sep 1. 9. 16. 22. 30 Oct 7. 9. 14. 18. 23. 26. 28 Nov 1. 3. 4. 6. 7. 14. 15. 17. 21. 27 Dec 1.
	Total No. of visits	4. 16. 1917. Jan 5. 10. 16. 23. 25 Feb 22. 26.
		Is the approved plan of main boiler forwarded herewith <u>Yes.</u>

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

” ” ” ~~donkey~~ ” ”

Dates of Examination of principal parts—Cylinders 9.10.16 Slides 3.11.16 Covers 9.10.16 Pistons 18.10.16 Rods 18.10.16

Connecting rods 14.11.16 Crank shaft 1.11.16 Thrust shaft 7.11.16 Tunnel shafts ✓ Screw shaft 12.8.16 Propeller 26.8.16

Stern tube 26-8-16. Steam pipes tested 5-1-17. Engine and boiler seatings 26-8-16. Engines holding down bolts 16-1-17.

Completion of pumping arrangements 26.2.17. Boilers fixed 16.1.17 Engines tried under steam 25.1.17.

Completion of fitting sea connections 26.8.16 Stern tube 26.8.16 Screw shaft and propeller 26.8.16

Main boiler safety valves adjusted 25.1.17 Thickness of adjusting washers P $\frac{13}{32}$ S $\frac{11}{32}$

Material of Crank shaft Iron Identification Mark on Do. 1-11-16 GA Material of Thrust shaft Iron Identification Mark on Do. 7-11-16 GA

Material of Tunnel shafts ☒ Identification Marks on Do. ☒ Material of Screw shafts Iron Identification Marks on Do. 12-8-16GA.

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 Seshon

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 190 lbs. per sq. inch.

In my opinion the vessel is eligible for the record * J.M.C.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 2.17

The amount of Entry Fee	...	£	1	:	-	:	} When applied for, 15-3-1917
Special	...	£	13	:	7	:	
Donkey Boiler Fee	...	£		:		:	
Travelling Expenses (if any)	£		2	:		:	When received, 31-3-1917

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 20 MAR. 1917

Assigned

+ Lmo 2:17

MACHINERY CERTIFICATE
WRITTEN.



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Foundation