

Rpt. 4.

## REPORT ON MACHINERY.

No. 26608  
THU AUG 14 1913Date of writing Report 30<sup>th</sup> July 1913 When handed in at Local Office 13<sup>th</sup> Aug 1913 Port of HullNo. in Survey held at Hull.  
Reg. Book.Date, First Survey Dec. 2<sup>nd</sup> 1912 Last Survey July 30<sup>th</sup> 1913  
(Number of Visits)

Sup. 4 on the Steamer "Inawilliam".

Master Built at Selby. By whom built Boehraue & Sons Ltd. Tons Gross 337.40 Net 124.35  
Engines made at Hull. By whom made Amos & Smith Ltd. when made 1913.  
Boilers made at Hull. By whom made Amos & Smith Ltd. when made 1913.  
Registered Horse Power Owners Hecla Steamer Fishing Co. Port belonging to Grimsby.  
Nom. Horse Power as per Section 28 90. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted yes.

**ENGINES, &c.—Description of Engines** Triple expansion No. of Cylinders 3 7.84 No. of Cranks 3.  
Dia. of Cylinders 13"-22½"-37" Length of Stroke 26" Revs. per minute Dia. of Screw shaft as per rule 7.79" 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 2'-9"  
Dia. of Tunnel shaft as per rule 7.017" Dia. of Crank shaft journals as per rule 7.367" Dia. of Crank pin 7½" Size of Crank webs 14"x4½" Dia. of thrust shaft under collars 7½" Dia. of screw 9'-6" Pitch of Screw 11'-2" No. of Blades 4. State whether moveable No. Total surface 330  
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 2½" Stroke 12" Can one be overhauled while the other is at work  
No. of Donkey Engines 2. Sizes of Pumps 6"x3"x6" x 6"x4"x6" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 2-2" one forward, one aft. In Holds, &c. One 2" to Fore Hold, one 2" to Main hold, one 2" to Forward slush well, one 2" to after slush well. 2" ejector from all bilges  
No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pumps a separate Donkey Suction fitted in Engine room & size  
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 Hold Suctions. 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.  
Dates of examination of completion of fitting of Sea Connections 19.5.13. of Stern Tube 19.5.13. Screw shaft and Propeller 19.5.13.  
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

**BOILERS, &c.—(Letter for record S.)** Manufacturers of Steel Masters. Phoenix A.B. Höder Verein. of Höder  
Total Heating Surface of Boilers 1521 Is Forced Draft fitted no. No. and Description of Boilers One Single-ended Multitubular  
Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 23.6.13 No. of Certificate 1992.  
Can each boiler be worked separately Area of fire grate in each boiler 43.125 No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 4.91 Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear yes.  
Smallest distance between boilers or uptakes and bunkers or woodwork 7" dia. of boilers 15½" Length 10'6" Material of shell plates S.  
Thickness 1/16 Range of tensile strength 29-33. Are the shell plates welded or flanged no. Descrip. of riveting: cir. seams S.R. Lap.  
long. seams A.B.S.T.R. Diameter of rivet holes in long. seams 1½" Pitch of rivets 7¼. Lap of plates or width of butt straps 17½".  
Per centages of strength of longitudinal joint rivets 85.2. Working pressure of shell by rules 288. Size of manhole in shell 16"x12"  
Size of compensating ring 9"x1½" No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 3'-3½"  
Length of plain part top 79.5. Thickness of plates crown 1/16 Description of longitudinal joint Welded. No. of strengthening rings  
bottom 74. Thickness of plates bottom 1/16 Working pressure of furnace by the rules 207. Combustion chamber plates: Material S. Thickness: Sides 22+23/32 Back 1/16 Top 22+23/32 Bottom 1/4  
Pitch of stays to ditto: Sides 8½"x9½" Back 8¼"x9 Top 8½"x8½" If stays are fitted with nuts or riveted heads none Working pressure by rules 208.  
Material of stays S. Diameter at smallest part 1.76. Area supported by each stay 80.75 Working pressure by rules 218. End plates in steam space:  
Material S. Thickness 1½" Pitch of stays 16¼"x17¼" How are stays secured none Working pressure by rules 208. Material of stays S.  
Area at smallest part 6.1 Area supported by each stay 290 Working pressure by rules 218. Material of Front plates at bottom S.  
Thickness 1 Material of Lower back plate S. Thickness 1/16 Greatest pitch of stays 14x9. Working pressure of plate by rules 218.  
Diameter of tubes 3½" Pitch of tubes 4½"x4½" Material of tube plates S. Thickness: Front 1" Back 7/8" Mean pitch of stays 9½"x14½"  
Pitch across wide water spaces 13¾" Working pressures by rules 226. Girders to Chamber tops: Material S. Depth and thickness of girder at centre 4½"x1½" Length as per rule 2'-9" Distance apart 8½" Number and pitch of stays in each 2, 8½"  
Working pressure by rules 210 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately  
Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

© 2020

Lloyd's Register  
Foundation



# VERTICAL DONKEY BOILER— Manufacturers of Steel

No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of Safety

Valves No. of Safety Valves Area of each Pressure to which they are adjusted Date of adjustment

If fitted with easing gear If steam from main boilers can enter the donkey boiler Dia. of donkey boiler Length

Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams

Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Rivets Plates

Working pressure of shell by rules Thickness of shell crown plates Radius of do. No. of stays to do. Dia. of stays

Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint

Working pressure of furnace by rules Thickness of furnace crown plates Radius of do. Stayed by

Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— One propeller, Two each top & bottom end connecting rod bolt nuts, two main bearing bolt nuts, one set of coupling bolt nuts, one set each feed & bilge pump valves, iron of different sizes, a quantity of assorted bolt nuts.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

Manufacturer.

Dates of Survey while building During progress of work in shops 1912:- Dec. 2. 10. 14. 16. 1913:- Jan. 15. 22. 29. Mar. 18. Apr. 4. 12. During erection on board vessel 15. 22. 24. 29. May 5. 9. 10. 19. 22. 28. Jun. 10. 12. 18. 23. 27. Jul. 10. 11. 14. 15. 22. 28. 30. Total No. of visits 36

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 10. 6. 13. Slides 10. 6. 13. Covers 10. 6. 13. Pistons 12. 6. 13. Rods 12. 6. 13.

Connecting rods 12. 6. 13. Crank shaft 10. 6. 13. Thrust shaft 10. 6. 13. Tunnel shafts Screw shaft 10. 5. 13. Propeller 5. 5. 13.

Stern tube 5. 5. 13. Steam pipes tested 10. 7. 13. Engine and boiler seatings 19. 5. 13. Engines holding down bolts 10. 7. 13.

Completion of pumping arrangements 10. 7. 13. Boilers fixed 10. 7. 13. Engines tried under steam 15. 7. 13.

Main boiler safety valves adjusted 15. 7. 13. Thickness of adjusting washers PY 7/16" SV 7/16" bare.

Material of Crank shaft S Identification Mark on Do. 1152. Material of Thrust shaft S Identification Mark on Do. 1152.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts S Identification Marks on Do. 1152.

Material of Steam Pipes Solid drawn Copper Test pressure 400lbs. hyd. pressure.

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 & workmanship are sound & good, the boiler tested by hydraulic pressure and with the engines secured on board & tested under steam they are now in good order & safe working condition, & respectfully submitted as being eligible in my opinion to be classed with the notation of TRM C 8. 13 in the Register book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 7. 13.

E. J. L. 14. 8. 13

The amount of Entry Fee .. £ 1 : : When applied for, Special .. £ 13. 10 : : 13. 8. 13. Donkey Boiler Fee .. £ : : When received, Travelling Expenses (if any) £ 2 : 8 30/8/13

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. AUG. 15. 1913

Assigned

+ LMC 7. 13

RECEIVED 22/8/13



© 2020

Lloyd's Register Foundation