

REPORT ON MACHINERY.

No. 14957

FRI. 17 OCT 1902

Port of Hull

Received at London Office

19

No. in Survey held at Hull Date, first Survey Jan 21st Last Survey Oct. 16th 1902
 Reg. Book. 18 Sup. on the Steam Trawler Mackenzie (Number of Visits 44)
 Master Built at Hull By whom built Lock William Tennant When built 1902
 Engines made at Hull By whom made Chas & Holmes Ltd when made 1902
 Boilers made at Hull By whom made Chas & Holmes Ltd when made 1902
 Registered Horse Power Owners Neptune Steam Fishing Co. Ltd Port belonging to Hull
 Nom. Horse Power as per Section 28 81 Is Refrigerating Machinery fitted No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three
 Dia. of Cylinders 13" 22" 36" Length of Stroke 27 Revs. per minute 112 Dia. of Screw shaft as per rule 7.53 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 Yes 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 No If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 32 1/2"
 Dia. of Tunnel shaft as per rule 6.85 Dia. of Crank shaft journals as per rule 7.2 Dia. of Crank pin 7 3/8" Size of Crank webs 14 1/2" x 5 1/2" Dia. of thrust shaft under collars 7 3/8" Dia. of screw 9" 0 Pitch of screw 12" 0 to 11" 0 No. of blades 4 State whether moveable No Total surface 28 1/2 sq ft
 No. of Feed pumps one Diameter of ditto 2 3/8" Stroke 16" Can one be overhauled while the other is at work No
 No. of Bilge pumps one Diameter of ditto 2 3/8" Stroke 16" Can one be overhauled while the other is at work No
 No. of Donkey Engines one Sizes of Pumps 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room two 2" In Holds, &c. three 2"
Ejector suction in Engine Bilge & hold and discharge on deck.
 No. of bilge injections one sizes 3" Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size 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 Yes
 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 Suction to forward How are they protected hard coiled
 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock Nov 1901 Is the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door No worked from No

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1370 sq ft Is forced draft fitted No
 No. and Description of Boilers One Cylindrical Working Pressure 180 lb. Tested by hydraulic pressure to 360 lb.
 Date of test 1/7/02 Can each boiler be worked separately No Area of fire grate in each boiler 32 sq ft No. and Description of safety valves to each boiler Two Spring Area of each valve 3.98 Pressure to which they are adjusted 185 lb. Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 12" 9" Length 10' 6" Material of shell plates Steel
 Thickness 1 1/16" Range of tensile strength 29,532 Are they welded or flanged No Descrip. of riveting: cir. seams all on 14" long seams all on 14" long
 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 6 7/8" Lap of plates or width of butt straps 15"
 Per centages of strength of longitudinal joint 90% Working pressure of shell by rules 186 lb. Size of manhole in shell 16" x 12"
 Size of compensating ring 6" x 1 1/16" No. and Description of Furnaces in each boiler two bottom Material Steel Outside diameter 44"
 Length of plain part top 14 1/2" Thickness of plates bottom 4 3/16" Description of longitudinal joint beaded No. of strengthening rings 4
 Working pressure of furnace by the rules 187 lb. Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 1 1/16" Top 1 1/16" Bottom 23/32"
 Pitch of stays to ditto: Sides 9" Back 9 1/4" Top 9" If stays are fitted with nuts or riveted heads both Working pressure by rules 195 lb.
 Material of stays Steel Diameter at smallest part 1 7/8" Area supported by each stay 9 1/2" x 9 1/2" Working pressure by rules 227 lb. End plates in steam space: Material Steel Thickness 1 1/16" Pitch of stays 17" How are stays secured all nut Working pressure by rules 185 lb. Material of stays Steel
 Diameter at smallest part 2 3/4" Area supported by each stay 17" x 17" Working pressure by rules 219 lb. Material of Front plates at bottom Steel
 Thickness 1 7/16" Material of Lower back plate Steel Thickness 1 7/16" Greatest pitch of stays 15" Working pressure of plate by rules 180 lb.
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 1 7/16" Back 29/32" Mean pitch of stays 9 1/4"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 180 lb. Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 9" x 13 1/2" Length as per rule 33" Distance apart 8 1/2" Number and pitch of Stays in each two 9"
 Working pressure by rules 220 lb. 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

W836 - 0034

DONKEY BOILER— No. Description *None*

Made at By whom made When made Where fixed
Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves
No. of safety valves Area of each Pressure to which they are adjusted 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 Thickness of shell crown plates Radius of do. No. of Stays to do.
Plates
Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint
Thickness of furnace crown plates Stayed by Working pressure of shell by rules
Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— *The top and bottom main bottom end bolts. Two main bearing bolts. One set coupling bolts. One set feed pump valves. One set Bilge pump valves. One set Check valves. Safety valve spring. The vessel efficient with masts and sails as a barter.*

The foregoing is a correct description,
Charles D. Holmes Manufacturer.

Dates of Survey while building { During progress of work in shops— 1902:— Jan 21. Feb 3. 10. 17. 20. 26 Mar. 1. 3. 12. 14. 18. 21. 27. Apr. 3. 10. 17. 23. 25 May 1. 6. 8. 14. 23. 27.
During erection on board vessel — Jun 2. 5. 10. 19 July 1. 8. 29 Aug 6. 19 Sep 12. 15. 17. 22. 24. 30. Oct 2. 7. 8. 14. 16.
Total No. of s 44 Is the approved plan of main boiler forwarded herewith *Yes*
" " " donkey " " "

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

The Machinery and Boiler of this Steam Trawler have been constructed under Special Survey and placed on board in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the certification + L M C 10. 02. in the Register Book.

It is submitted that this vessel is eligible for THE RECORD - L M C 10. 02.

17.10.02

17.10.02

The amount of Entry Fee.. £ 1 : - : - When applied for, 13/10/02
Special .. £ 12 : 3 : -
Donkey Boiler Fee .. £ - : - : -
Travelling Expenses (if any) £ - : - : -
When received, 21.10.02

Committee's Minute

TUES. 21 OCT 1902

Assigned

+ L M C 10. 02

MACHINERY CERTIFICATE
WRITTEN



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Foundation