

REPORT ON MACHINERY.

No. 16289.

Port of Hull

Received at London Office WES. 20 SEP 1904

No. in Survey held at Hull Date, first Survey June 1st Last Survey Augst 20th 1904
 Reg. Book. 748 on the Steam Trawler "Japan" (Number of Visits 10) Tons { Gross 205 Net 78
 Master Selby Built at Selby By whom built Bochane Sons When built 1904
 Engines made at Hull By whom made C. D. Holmes & Co when made 1904
 Boilers made at " By whom made " when made 1904
 Registered Horse Power 66 Owners J. L. Taylor Port belonging to Grimsey
 Nom. Horse Power as per Section 28 66 Is Refrigerating Machinery fitted No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Tri-Compound No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12" - 21" - 34" Length of Stroke 24" Revs. per minute 7112 Dia. of Screw shaft 7 1/2" 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 lapped Yes If the liner does not fit tightly at the part between the bearings in the stern tube, is the space changed 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 31"
 Dia. of Main shaft as per rule 6.26 as fitted 6 5/8 Dia. of Crank shaft journals as per rule 6.58 as fitted 6 3/4 Dia. of Crank pin 6 3/4 Size of Crank webs 12 3/8" x 4 7/8" Dia. of thrust shaft under collars 6 3/4 Dia. of screw 8 x 6" Pitch of screw 11-6" - 10-6" No. of blades 4 State whether moveable No Total surface 26 1/2 sq ft
 No. of Feed pumps 1 Diameter of ditto 2 1/6" Stroke 24" Can one be overhauled while the other is at work
 No. of Bilge pumps 1 Diameter of ditto 2 1/6" Stroke 24" Can one be overhauled while the other is at work
 No. of Donkey Engines 1 Sizes of Pumps 2 3/4" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 2" In Holds, &c. One 2" + one 2" to peak
 Ejector suction in Eng. Room, bilge, hold, and discharge on deck
 No. of bilge injections 1 sizes 2 3/4" Connected to condenser, or to circulating pump Air pump 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 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 Suction to hold 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock now new Is the screw shaft tunnel watertight None
 Is it fitted with a watertight door worked from

BOILERS, &c.— (Letter for record 8) Total Heating Surface of Boilers 1090 sq ft Is forced draft fitted No
 No. and Description of Boilers One Cyl. Multi. Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs
 Date of test 11.8.04 Can each boiler be worked separately Area of fire grate in each boiler 35 sq ft No. and Description of safety valves to each boiler Two Spring Area of each valve 3.976 sq in Pressure to which they are adjusted 183 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 12'-0" Length 9'-6" Material of shell plates Steel
 Thickness 1" Range of tensile strength 39 tons Are they welded or flanged Descrip. of riveting: cir. seams Lap. D.r. long. seams D. butt strap. J.R.
 Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 7 3/8" Lap of plates or width of butt straps 15"
 Per centages of strength of longitudinal joint rivets 84.4 Working pressure of shell by rules 187 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 4" x 1" No. and Description of Furnaces in each boiler Two Holmes Material Steel Outside diameter 41"
 Length of plain part top 15 1/2" bottom 16" Thickness of plates crown 11" bottom 16" Description of longitudinal joint Welded No. of strengthening rings four Corrug.
 Working pressure of furnace by the rules 207 lbs Combustion chamber plates: Material Steel Thickness: Sides 33/32" Back 11/16" Top 33/32" Bottom 33/32"
 Pitch of stays to ditto: Sides 9' Back 9' Top 8' If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 214 lbs
 Material of stays Steel Diameter at smallest part 1 5/8" Area supported by each stay 76.5 sq in Working pressure by rules 243 lbs End plates in steam space:
 Material Steel Thickness 1 3/32" Pitch of stays 16" How are stays secured dbl nuts Working pressure by rules 196 lbs Material of stays Steel
 Diameter at smallest part 2 33/32" Area supported by each stay 256 sq in Working pressure by rules 225 lbs Material of Front plates at bottom Steel
 Thickness 33/32" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 15" Working pressure of plate by rules 180 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 5/8" Material of tube plates Steel Thickness: Front 27/32" Back 11/16" Mean pitch of stays 9 1/2"
 Pitch across wide water spaces 15" Working pressures by rules 180 lbs Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 7 3/4" x 13 1/4" Length as per rule 28" Distance apart 8" Number and pitch of Stays in each Three x 7 1/2"
 Working pressure by rules 206 lbs 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 2020 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

If not, state whether, and when, it will be sent? In a Report also sent on the Hull of the Ship?



DONKEY BOILER— No. Description

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 Plates 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

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:— Two each, top & bottom end, main bearing bolts, One set coupling bolts, One set feed pump valves, One set bilge pump valves, one set check valves, safety valve spring, & a quantity of assorted bolts & nuts etc.

The foregoing is a correct description,

Charles D. Holmes Manufacturer.

Dates of Survey while building

During progress of work in shops - - 1904: Jun 1. 7. 17. 24. July 1. 5. 16 Aug 10. 19. 20.

During erection on board vessel - -

Total No. of s

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 vessel have been constructed under special survey and placed on board in accordance with the Society's Rules, and are now in our opinion in a good safe working condition, & respectfully submitted for the notification *L.M.C. 8.04* in the Register Book

It is submitted that this vessel is eligible for THE RECORD *L.M.C. 8.04*

W.S.
20.9.04
30.9.04

Certificate (if required) to be sent to Committee's Minute.
(Use Surveyors and requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee.. £ 1 : : : When applied for,
Special £ 9 : 18 : : 19/9/1904
Donkey Boiler Fee £ - : - : :
Travelling Expenses (if any) £ - : - : : 30/9/04

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

FRI. 23 SEP 1904

Committee's Minute

Assigned

+ L.M.C. 8.04

MACHINERY CERTIFICATE WRITTEN.



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