

REPORT ON MACHINERY.

23614
No. 18399

Port of Hull

Received at London Office TUES. 9 OCT 1806

No. in Survey held at Hull
Book 17 on the

Date, first Survey Oct 31st 1898 Last Survey Sep 6th 1906
(Number of Visits 67)

ster Built at Rutherford By whom built W Chambers & Co
ines made at Hull By whom made Humber Iron Works Co when made 1906
lers made at " By whom made Humber Iron Works Co when made 1906
istered Horse Power Owners Bailey & Leitham Port belonging to Hull

Horse Power as per Section 28 549 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

INES, &C.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

of Cylinders 13 1/4" - 20" - 32" Length of Stroke 23" Revs. per minute 125 Dia. of Screw shaft as per rule 6.8" Material of Iron
as fitted 6 3/4" as fitted 6 3/4" screw shaft

he screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight
he propeller boss Yes If the liner is in more than one length are the joints burned Two separate liners If the liner does not fit tightly at the part

een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive No If two
s are fitted, is the shaft lapped or protected between the liners No

of Tunnel shaft as per rule 5 7/8" Dia. of Crank shaft journals as per rule 6.3" Dia. of Crank pin 6 3/8" Size of Crank webs 10 1/2" x 4" Dia. of thrust shaft under
as fitted 6 1/4" as fitted 6 3/8"

ers 6 1/2" Dia. of screw 7'-9" Pitch of Screw 10'-0" No. of Blades 4 State whether moveable No Total surface 28 sq
of Feed pumps 1 Diameter of ditto 2" Stroke 10" Can one be overhauled while the other is at work

of Bilge pumps 1 Diameter of ditto 2" Stroke 10" Can one be overhauled while the other is at work
of Donkey Engines One Sizes of Pumps 5 1/2" x 3" x 6" O. A. No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Two 2" In Holds, &c. One 2" aft One 2" forward
jector suction from eng room bilge holds discharge overboard

of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump Condenser Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2" Ejector
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

all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both
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

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
pipes are carried through the bunkers None How are they protected

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

s of examination of completion of fitting of Sea Connections 10.4.06 of Stern Tube 10.4.06 Screw shaft and Propeller 10.4.06
Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

ERS, &C.—(Letter for record 8) Manufacturers of Steel The Wensdale Iron Coal Co. Ld.

Heating Surface of Boilers 877 sq ft Is Forced Draft fitted No No. and Description of Boilers One Cyl. Mult. single End.
ing Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 14.12.05 No. of Certificate 1436

each boiler be worked separately Area of fire grate in each boiler 30 sq ft No. and Description of Safety Valves to
boiler Two Spring Area of each valve 3.9 sq ft Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

est distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers 11'-0" Length 10'-0" Material of shell plates Steel
ress 1" Range of tensile strength 27.32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L. D.

reams O.B.S. J.R. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7 1/2" Lap of plates or width of butt straps 16"
ntages of strength of longitudinal joint rivets 88.8 Working pressure of shell by rules 192 lbs Size of manhole in shell 16" x 12"
plate 96.

compensating ring 28" x 24" x 1" No. and Description of Furnaces in each boiler Two Morrison's. Material Steel Outside diameter 44 1/2"
of plain part top Thickness of plates crown 17" Description of longitudinal joint Welded No. of strengthening rings
bottom 32

ing pressure of furnace by the rules 184 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 9/16"
of stays to ditto: Sides 7 1/2" x 7 1/2" Back 7 1/2" x 7 1/2" Top 7 1/2" x 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 194 lbs

ial of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 56 sq ft Working pressure by rules 211 lbs End plates in steam space:
ial Steel Thickness 5/16" Pitch of stays 14 1/2" x 14" How are stays secured O. Nuts Working pressure by rules 205 lbs Material of stays Steel

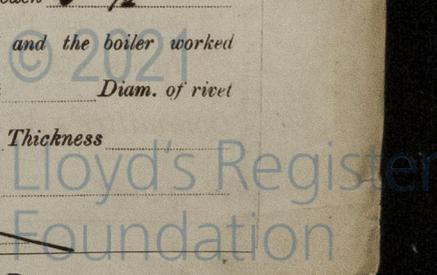
er at smallest part 2 3/8" Area supported by each stay 203 sq ft Working pressure by rules 218 lbs Material of Front plates at bottom Steel
ss 1 1/2" Material of Lower back plate Steel Thickness 3/8" Gratest pitch of stays 12" Working pressure of plate by rules 200 lbs

er of tubes 3 1/2" Pitch of tubes 5" x 4 3/8" Material of tube plates Steel Thickness: Front 13/16" Back 3/4" Mean pitch of stays 10" x 9 1/2"
across wide water spaces 13 1/2" Working pressures by rules 180 lbs Girders to Chamber tops: Material Iron Depth and

ss of girder at centre 6 1/2" x 2" Length as per rule 29" Distance apart 7" Number and pitch of stays in each 3. 7 1/2"
ing pressure by rules 189 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

by Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

ed with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
ing pressure of end plates Area of safety valves to superheater Are they fitted with easing gear



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 _____ Stayed by _____
 Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— Two each top & bottom end connecting rod bolts and nuts, two main bearing bolts and nuts. One set coupling bolts & nuts, one set feed helge pump valves, and a quantity of assorted bolts & nuts etc.

FOR BAILEY & LEETHAM,
 MANAGER IRON WORKS.

The foregoing is a correct description,

Manufacturer.

W. M. McKinnon
 MANAGER.

Dates of Survey while building
 During progress of work in shops— 1898:— Oct. 31, Dec. 1, 8. 1899:— Jan. 5, Mar. 17, 22, Apr. 7, 13, 18, 21, 25, 30, Jun. 5, 13, 14, 20, Jul. 3, 11, 28, 31, Aug. 14, 17, 28.
 During erection on board vessel— Sep. 5, 7, 12, 19, 25, Oct. 18, 27, Nov. 6, 13, 22, 30, 1900:— Mar. 30, Jun. 23, Oct. 18, 23, 25, 1905:— Mar. 21, Sep. 13, 26, 28, Nov. 9, 1906:— Dec. 7, 14, 1906:— Mar. 8, Apr. 4, 5, 9, 11, 12, 24, 27, May 3, 7, 10, Jun. 11, 14, 15, 26, 26, Jul. 4, Aug. 8, 18, Sep. 4, 6.
 Total No. of visits 67
 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____
 Connecting rods _____ Crank shaft _____ Thrust shaft 10.4.06 Tunnel shafts 10.4.06 Screw shaft 10.4.06 Propeller 10.4.06
 Stern tube 10.4.06 Steam pipes tested 15.6.06 Engine and boiler seatings 24.4.06 Engines holding down bolts 4.7.06
 Completion of pumping arrangements 8.8.06 Boilers fixed 4.7.06 Engines tried under steam 8.8.06
 Main boiler safety valves adjusted 4.7.06 Thickness of adjusting washers 5/16"
 Material of Crank shaft Iron Identification Mark on Do. 251 Material of Thrust shaft Iron Identification Mark on Do. 251
 Material of Tunnel shafts Iron Identification Marks on Do. 251 Material of Screw shafts Iron Identification Marks on Do. 251
 Material of Steam Pipes Solid drawn Copper Test pressure 360 lbs

General Remarks (State quality of workmanship, opinions as to class, &c.) The engines and boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are good. The boiler tested by hydraulic pressure and with the engines, fitted on board and tested under steam they are now in good order and safe working condition and respectfully submitted as being eligible in our opinion to be classed with the notation of **L.M.B.9.06** in the Register Book.

The engines boiler of this vessel are similar to those fitted on the Douglas. Hull Report 8.16642.

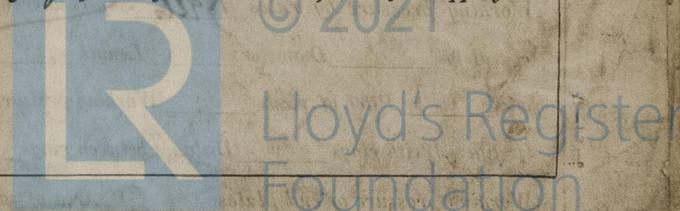
It is submitted that
 this vessel is eligible for
THE RECORD

The amount of Entry Fee.. £ 1 : . : . When applied for.
 Special £ 8 . 5 : . 20/9/1906
 Donkey Boiler Fee £ - : - : . When received 21/9/1906
 Travelling Expenses (if any) £ - : - : .

H. M. C. G. 06
James Barclay & Co
 Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.
 12.9.06

Committee's Minute FRI. 12 OCT 1906

Assigned



Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.