

REPORT ON MACHINERY.

No. 10389

Port of And.
 No. in Survey held at And.
 Reg. Book Supp 34 on the
 Date, first Survey Dec 19/95 Last Survey April 18 96
 Received at London Office MON. MAY 4 1896
 (Number of Visits) 13
 Master Trawler "Helson"
 Built at Berkeley By whom built Cochran & Cooper
 Engines made at And By whom made C.D. Holmes & Co.
 Boilers made at And By whom made do.
 Registered Horse Power 40 Owners J. Grant.
 Nom. Horse Power as per Section 28 41 HP
 Tons { Gross 134
 Net 44
 When built 1896
 when made 1896
 when made 1896
 Port belonging to Grimsby

ENGINES, &c.— Description of Engines Triple expansion Vertical No. of Cylinders 3
 Diameter of Cylinders 11 x 17 x 28 Length of Stroke 21 Revolutions per minute 112 Diameter of Screw shaft 5.4
 as per rule 5.1 as fitted 5.13/16 Diameter of Tunnel shaft 5 1/2 Diameter of Crank shaft journals 5 3/4 Diameter of Crank pin 5 3/4 Size of Crank webs 5 7/8 x 4 1/8
 Diameter of screw 7.9" Pitch of screw 9.6" No. of blades 4 State whether moveable no Total surface 21.5 sq
 No. of Feed pumps One Diameter of ditto 1 7/8" Stroke 21" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps One Diameter of ditto 2" Stroke 21" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines One Sizes of Pumps 2 1/2 x 5 double acting No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One 2" dia. In Holds, &c. One 2" dia.
 No. of bilge injections 1 sizes 3" Connected to condenser, or to circulating pump no Is a separate donkey suction fitted in Engine room & size 2 1/2"
 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 hold suction 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 no tunnel
 Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 687 sq
 No. and Description of Boilers One cyl & mult. Working Pressure 162 Tested by hydraulic pressure to 324
 Date of test 18/3/96 Can each boiler be worked separately ✓ Area of fire grate in each boiler 22.6 sq No. and Description of safety valves to
 each boiler Two - Spring loaded Area of each valve 3.14 sq Pressure to which they are adjusted 167 Are they fitted
 with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean diameter of boilers 10' 0"
 Length 9' 3" Material of shell plates steel Thickness 27/32 Description of riveting: circum. seams double long. seams D Butt Strap
 Diameter of rivet holes in long. seams 15/16 Pitch of rivets 6 15/16 Lap of plates or width of butt straps 14 1/4
 Per centages of strength of longitudinal joint rivets 88% plate 86% Working pressure of shell by rules 164 Size of manhole in shell 16 x 12
 Size of compensating ring 13 1/16 x 6" No. and Description of Furnaces in each boiler 2 Holmes Material steel Outside diameter 35"
 Length of plain part top 14 1/2 bottom 14 1/2 Thickness of plates crown 1/2 bottom 1/2 Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 162 Combustion chamber plates: Material steel Thickness: Sides 19/32 Back 9/16 Top 9/16 Bottom 19/32
 Pitch of stays to ditto: Sides 8" Back 7 1/8" Top 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184
 Material of stays steel Diameter at smallest part 1.32 Area supported by each stay 60 sq Working pressure by rules 196 End plates in steam space:
 Material steel Thickness 7/8 Pitch of stays 14 3/4 How are stays secured nuts Working pressure by rules 168 Material of stays steel
 Diameter at smallest part 2.3 Area supported by each stay 216 sq Working pressure by rules 172 Material of Front plates at bottom steel
 Thickness 3/4 Material of Lower back plate steel Thickness 1 1/16 Greatest pitch of stays 7 5/8 Working pressure of plate by rules 162
 Diameter of tubes 3 1/4 Pitch of tubes 4 3/4 Material of tube plates steel Thickness: Front 3/4 Back 13/16 Mean pitch of stays 9 5/8
 Pitch across wide water spaces 13 1/4 Working pressures by rules 162 Girders to Chamber tops: Material iron Depth and
 thickness of girder at centre 7 1/4 x 13 1/4 Length as per rule 29 1/4 Distance apart 7 3/8 Number and pitch of Stays in each 3. 7 1/2"
 Working pressure by rules 173 Superheater or Steam chest; how connected to boiler no superheater or steam chest Can the superheater be shut off and the boiler worked
 separately no Diameter no Length no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivet
 plates no Pitch of rivets no Working pressure of shell by rules no Diameter of flue no Material of flue plates no Thickness no
 stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed no
 Working pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear no

DONKEY BOILER— Description *No donkey boiler*
 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 enter the donkey boiler _____
 Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long seams _____ Diameter 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. _____
 Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description 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:— *2 top and bolts, 2 bottom and bolts, 2 main heating bolts, 1 set coupling bolts, 1 set feed pump valve, 1 set bilge pump valves, set of check valves, 1 safety valve spring. The vessel is provided with masts & sails as a Gulet.*

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

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

The machinery of this vessel has been constructed under Special Permit and placed on board in accordance with the Society's Rules and is eligible in my opinion for the notification + L.M.C.H. 96 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

L.M.C.H. 96
Emd.
4.5.96

J.S.
4.5.96

Certificate (if required) to be sent to *Hull.*
 The amount of Entry Fee.. £ 1 : - : When applied for,
 Special £ 8 : 0 : } 2/5/18.96
 Donkey Boiler Fee £ : : : When received,
 Travelling Expenses (if any) £ : : : } 18.96
 WRITTEN

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

Committee's Minute **TUES. MAY 5 1896**
 Assigned *+ L.M.C.H. 96*

Official N
 Signal Lette
 105
 No., Date, a
 Whether Briti
 Foreign Bu
 Britis
 Number of D
 Number of M
 Rigged ...
 Stern ...
 Build ...
 Galleries
 Head ...
 Framework a
 vessel ...
 Number of B
 Number of w
 and their c
 Total to quan
 at side am
 No. of
 Engines
 One
 Triple
 Iron or
 Pressur
 Under Tonna
 Closed-in spa
 Space or s
 Poop ...
 Forecastle
 Round Ho
 Other clos
 Break
 Spaces for
 Deductions,
 Name
 No. of Own
 Name, Resi
 Dated /

