

REPORT ON MACHINERY.

No. 12340

Port of Glasgow

Received at London Office **FRI 21 JUL 1893**

No. in Survey held at Glasgow Date, first Survey 15th April Last Survey 13th July 1893
 Reg. Book. on the Steam Trawler "Osprey" (Number of Visits 20)
 Master Built at Govan By whom built Mackie & Thomson Tons { Gross 141 Net 54
 Engines made at Glasgow By whom made Muir & Houston when made 1893
 Boilers made at Glasgow By whom made Muir & Houston when made 1893
 Registered Horse Power 35 Owners Great Grimsby Tea Co Port belonging to Grimsby.
 Nom. Horse Power as per Section 28 33

ENGINES, &c.— Description of Engines Triple Expansion inverted direct acting No. of Cylinders Three
 Diameter of Cylinders 10, 16 25 1/2 Length of Stroke 20 Revolutions per minute _____ Diameter of Screw shaft _____ as per rule 4 1/4
 Diameter of Tunnel shaft _____ as per rule _____ as fitted 5 1/4 Diameter of Crank shaft journals 5 1/4 Diameter of Crank pin 5 1/4 Size of Crank webs 3 3/8, 9 3/4
 Diameter of screw 7' 0" Pitch of screw 9' 0" No. of blades four State whether moveable fixed Total surface 16 sq. ft.
 No. of Feed pumps one Diameter of ditto 1 3/4 Stroke 10 Can one be overhauled while the other is at work _____
 No. of Bilge pumps one Diameter of ditto 2 1/4 Stroke 10 Can one be overhauled while the other is at work _____
 No. of Donkey Engines one Sizes of Pumps 6 + 3 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps _____
 In Engine Room Two, 2" in engine room In Holds, &c. 2" from centre of main hold
 No. of bilge injections one sizes 2 1/2 Connected to condenser, or to circulating pump coil Is a separate donkey suction fitted in Engine room of size yes, 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 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 stowhold 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 none How are they protected _____
 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 before launching Is the screw shaft tunnel watertight none
 Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 5740
 No. and Description of Boilers one Cylindrical return tubular Working Pressure 160 Tested by hydraulic pressure to 320
 Date of test _____ Can each boiler be worked separately _____ Area of fire grate in each boiler 27 No. and Description of safety valves to each boiler two spring loaded Area of each valve 3' 14" Pressure to which they are adjusted 160 Are they fitted with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean diameter of boilers 108"
 Length 8' 9" Material of shell plates Steel Thickness 27/32 Description of riveting: circum. seams lap. 1 Rivet long. seams 8 Butt 4 blind
 Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7 1/2 Lap of plates or width of butt straps 17"
 Percentages of strength of longitudinal joint: rivets 101 plate 85 Working pressure of shell by rules 165 Size of manhole in shell 12 x 16
 Size of compensating ring M. Nails No. and Description of Furnaces in each boiler two Material Steel Outside diameter 33
 Length of plain part top 5 1/4 bottom 7 3/4 Thickness of plates crown 9/8 bottom 9 x 7/8 Description of longitudinal joint Welded No. of strengthening rings none
 Working pressure of furnace by the rules 200 Combustion chamber plates: Material Steel Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 3/4
 Pitch of stays to ditto: Sides 8 1/4 Back 8 1/4 Top 8 1/2 x 6 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 161
 Material of stays Steel Diameter at smallest part 1' 4 1/2 Area supported by each stay 8 1/2 x 8 1/2 Working pressure by rules 170 End plates in steam space: Material Steel Thickness 49/64 Pitch of stays 13 How are stays secured 8 Nuts & washers Working pressure by rules 165 Material of stays Steel
 Diameter at smallest part 3' 4 1/2 Area supported by each stay 13 x 13 Working pressure by rules 186 Material of Front plates at bottom Steel
 Thickness 49/64 Material of Lower back plate Steel Thickness 49/64 Greatest pitch of stays 11 1/2 Working pressure of plate by rules 188
 Diameter of tubes 3" Pitch of tubes 4 3/8 & 4 1/4 Material of tube plates Steel Thickness: Front 49/64 Back 9/16 double Mean pitch of stays 8 5/8
 Pitch across wide water spaces 13 Working pressures by rules 226 Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 6 x 2 x 3/4 and angle iron Length as per rule 46 Distance apart 1 1/2 Number and pitch of Stays in each two 8 1/2
 Working pressure by rules 177 Superheater or Steam chest; how connected to boiler none 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 _____

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the ship?

Lloyd's Register Foundation

GLS1678-0190

DONKEY BOILER— Description

12346 *gls*

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 _____
 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 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:— *As required by the rules*

The foregoing is a correct description,

Muir Houston Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *This vessels engines and boilers have been built under the conditions of special survey and securely fitted on board: They worked well under steam, and the material and workmanship is good.*

It is submitted that this vessel is eligible for the record + L.M.C. 7. 93.

[Large blue scribbles]

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 7. 93 -

Sub 21/7/93 -

Certificate (if required) to be sent to

The amount of Entry Fee..	£ 1	When applied for,	
Special	£ 8	WRITTEN	<i>24/7/93</i>
Donkey Boiler Fee .. .	£ "	When received,	<i>20/7/93</i>
Travelling Expenses (if any) £	"		

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

Committee's Minute

TUES. 25 JUL 1893

Assigned

+ L.M.C. 7. 93



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