

REPORT ON MACHINERY.

Port of Leith

MON. JUN 8 1896

No. in Survey held at Leith Date, first Survey 19th Feb Last Survey 1st June 1896
 Reg. Book. Received at London Office _____
 on the S. K. "Isle of May" (Number of Visits 21)
 Master _____ Built at Leith By whom built Hawthorne & Co Tons { Gross 114.42
 Net 22.07
 When built 1896
 Engines made at Leith By whom made Hawthorne & Co when made 1896
 Boilers made at do By whom made do when made 1896
 Registered Horse Power 34 Owners Anstruther Steam Fishing Co Ltd Port belonging to Kirkcaldy
 Nom. Horse Power as per Section 28 41.

ENGINES, &c. — Description of Engines Compound, inverted No. of Cylinders 2
 Diameter of Cylinders 14" + 29" Length of Stroke 21" Revolutions per minute 125 Diameter of Screw shaft as per rule 5.7"
 Diameter of Tunnel shaft as fitted 5.3 1/2" Diameter of Crank shaft journals 6" Diameter of Crank pin 6" Size of Crank webs 11 x 4 1/2"
 Diameter of screw 6' 9" Pitch of screw 9' 10 1/2" No. of blades 4 State whether moveable No Total surface 18 f
 No. of Feed pumps 1 Diameter of ditto 2 1/8" Stroke 11" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2 1/8" Stroke 11" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines One Sizes of Pumps 4 1/8" x 2 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two, 2" diat. + ejector 2" diat. In Holds, &c. One 2" diat. + ejector 2" diat.
 No. of bilge injections 1 sizes 3 1/4" Connected to condenser, or to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes 2" di
 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 Bilge suction to hold How are they protected By 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 new vessel 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 745 f
 No. and Description of Boilers one, cylindrical single ended Working Pressure 120 lbs Tested by hydraulic pressure to 240 lbs
 Date of test 9-5-96 Can each boiler be worked separately ✓ Area of fire grate in each boiler 29 f No. and Description of safety valves to
 each boiler Two, direct spring Area of each valve 3.97 sq Pressure to which they are adjusted 120 lbs Are they fitted
 with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean diameter of boilers 9' 5 1/2"
 length 9' 3" Material of shell plates Steel Thickness 25/32" Description of riveting: circum. seams Lap & Rivet long. seams Lap & Rivet
 Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 4" Lap of plates or width of butt straps 7 3/8"
 Percentages of strength of longitudinal joint
 rivets 76.5 Working pressure of shell by rules 124 lbs Size of manhole in shell 16" x 12"
 plate 72.5
 Size of compensating ring Mc Neil's No. and Description of Furnaces in each boiler 2, plain Material Steel Outside diameter 33 3/32"
 length of plain part top 6.4 ft Thickness of plates bottom 35/64" Description of longitudinal joint Welded No. of strengthening rings none
 Working pressure of furnace by the rules 127 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 5/8"
 Pitch of stays to ditto: Sides 8" Back 8" Top 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 120 lbs
 Material of stays Steel Diameter, at smallest part 1.19 sq Area supported by each stay 64 sq Working pressure by rules 148 lbs End plates in steam space:
 Material Steel Thickness 3/4" Pitch of stays 14 1/2" How are stays secured S. N. + W. Working pressure by rules 127 lbs Material of stays Steel
 Diameter, at smallest part 3.43 sq Area supported by each stay 196 sq Working pressure by rules 157 lbs Material of Front plates at bottom Steel
 thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13" 1/2" doubling Working pressure of plate by rules 151 lbs
 diameter of tubes 3 1/4" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9"
 pitch across wide water spaces 14" 1/2" doubling Working pressures by rules 183 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 5" x 1 1/2" Length as per rule 1' 11" Distance apart 7 1/2" Number and pitch of Stays in each 2, 8"
 Working pressure by rules 143 lbs 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 ✓
 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 ✓



DONKEY BOILER— 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 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 per Rule*

The foregoing is a correct description,
James Strickland Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & boiler of this vessel have been constructed under special survey & the materials workmanship all found & good. The engines have been tried & the boiler safety valves adjusted at the working pressure. The machinery now in good & safe working condition & eligible in my opinion to have the notation of + LMC 6,96. The boiler tracing is forwarded herewith.*

It is submitted that
 this vessel is eligible for
THE RECORD. *L.M.C. 6.96.*

J.S. *Eng.*
22.6.96 *22.6.96.*

Over

Certificate (if required) to be sent to

The amount of Entry Fee..	£ / :-	When applied for, <i>22/6/96</i>
Special	£ 8 :-	
Donkey Boiler Fee	£ ✓ :-	When received, <i>22/6/96</i>
Travelling Expenses (if any) £	✓ :-	

Thomas Field
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute *FRI JUN 19 1896* *TUES. JUN 23 1896*
 Assigned *+ LMC 6,96*

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