

REPORT ON MACHINERY.

No. 13691

THUR 6 JUN 1895

Port of Glasgow

No. in Survey held at Glasgow
Reg. Book.

Date, first Survey 20th Feb 95

Last Survey 18th May 1895

(Number of Visits 11)

286 on the Iron S.S. "Sea Fisher"

Gross 274
Net 126
Tons

Master Belfast Built at Belfast By whom built McMurray & Co When built 1883.9

Engines made at Belfast By whom made McMurray, Lewis & Co when made 1883

Boilers made at Glasgow By whom made Muir & Houston when made 1896

Registered Horse Power 50 Owners S.S. Sea Fisher Co (Lim) Port belonging to Barrow

Nom. Horse Power as per Section 28 J. Fisher & Sons

ENGINES, &c.— Description of Engines S&W No. of Cylinders 2
Diameter of Cylinders _____ Length of Stroke _____ Revolutions per minute _____ Diameter of Screw shaft _____ as per rule _____
Diameter of Tunnel shaft _____ as per rule _____ Diameter of Crank shaft journals _____ Diameter of Crank pin _____ Size of Crank webs _____
Diameter of screw _____ Pitch of screw _____ No. of blades _____ State whether moveable _____ Total surface _____
No. of Feed pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
No. of Bilge pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
No. of Donkey Engines _____ Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____
In Engine Room _____ In Holds, &c. _____
No. of bilge injections _____ sizes _____ Connected to condenser, or to circulating pump _____ Is a separate donkey suction fitted in Engine room & size _____
Are all the bilge suction pipes fitted with roses _____ Are the roses in Engine room always accessible _____ Are the sluices on Engine room bulkheads always accessible _____
Are all connections with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the discharge pipes above or below the deep water line _____
Are they each fitted with a discharge valve always accessible on the plating of the vessel _____ Are the blow off cocks fitted with a spigot and brass covering plate _____
What pipes are carried through the bunkers _____ How are they protected _____
Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times _____
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges _____
When were stern tube, propeller, screw shaft, and all connections examined in dry dock _____ Is the screw shaft tunnel watertight _____
Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1030 f
No. and Description of Boilers One cylindrical return tube Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs
Date of test 6/5/95 Can each boiler be worked separately _____ Area of fire grate in each boiler 33 sq ft No. and Description of safety valves to each boiler Two 3 spring Area of each valve 8.3 sq in Pressure to which they are adjusted 80 lbs Are they fitted with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 5" Mean diameter of boilers 11'-0"
Length 9'-6" Material of shell plates Steel Thickness 9/16" Description of riveting: circum. seams Lap 2" long. seams d. butt 3/4"
Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 6" Lap of plates or width of butt straps 1'-5"
Per centages of strength of longitudinal joint _____ rivets 134% Working pressure of shell by rules 86 lbs Size of manhole in shell 16" x 12"
Size of compensating ring 2" x 1/2" No. and Description of Furnaces in each boiler 2 Plain Material Steel Outside diameter 37"
Length of plain part _____ top 5'-1 1/2" bottom 8'-3" Thickness of plates _____ crown 1/2" bottom 1/2 3/4" Description of longitudinal joint d. butt strap No. of strengthening rings None
Working pressure of furnace by the rules 108 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 9/16"
Pitch of stays to ditto: Sides 9x9" Back 9x9" Top 9x7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 95 lbs
Material of stays Steel Diameter at smallest part 1 1/4" Area supported by each stay 81" Working pressure by rules 82 lbs End plates in steam space: Material Steel Thickness 5/8" Pitch of stays 15" x 15" How are stays secured d. nuts + washers Working pressure by rules 82 lbs Material of stays Steel
Diameter at smallest part 2 7/8" Area supported by each stay 225" Working pressure by rules 108 lbs Material of Front plates at bottom Steel
Thickness 5/8" Material of Lower back plate Steel Thickness 5/8" Greatest pitch of stays 15" Working pressure of plate by rules 161 lbs
Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 5/8" Back 5/8" Mean pitch of stays 11 1/2"
Pitch across wide water spaces 14" Working pressures by rules 140 lbs Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 6" x 1" Length as per rule 2'-4" Distance apart 7" Number and pitch of Stays in each 2-9"
Working pressure by rules 85 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 _____
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 _____

13691 glr

DONKEY BOILER—

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 _____ Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
Description of riveting long. seams _____ Diameter of rivet holes _____ Whether pinched 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:—

The foregoing is a correct description,
Mun & Houston Manufacturer.

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

The above Main Boiler has been built under Special Survey & is of good workmanship & material. It has now been forwarded to Barrrow to be there fitted on board the vessel.

1 Boiler Tracing Print hereto attached.

Certificate (if required) to be sent to

The amount of Entry Fee. . . £ : : When applied for,
Special £ 3 : 3 : 14/5 18 95
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ : : 18/5 18 95

Committee's Minute

FRI 7 JUN 1895

Assigned

Allen E. Field
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Lloyd's Register
Foundation