

REPORT ON BOILERS.

No. 24046

THUR. 1 NOV 1906

Port of Glasgow

Received at London Office

No. in Survey held at Aman
Reg. Book.

Date, first Survey 8th May Last Survey 22nd May 1906

on the Donkey boiler for S.S. "Marian" (Number of Visits 3) Gross 260 Tons Net 260

Master _____ Built at Aberdeen By whom built John Guthrie & Co. Ltd. When built 1906
Engines made at Glasgow By whom made W.B.E. Ridgerwood Coalbridge when made 1906
Boilers made at _____ By whom made A & W. Dalglisk when made 1906
Registered Horse Power 69.68 Owners North Eastern Shipping Co. Port belonging to Aberdeen

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

(Letter for record _____) Total Heating Surface of Boilers _____ Is forced draft fitted _____ No. and Description of Boilers _____

Working Pressure _____ Tested by hydraulic pressure to _____ Date of test _____

No. of Certificate _____ Can each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of safety valves to each boiler _____

Area of each valve _____ Pressure to which they are adjusted _____

Are they fitted with easing gear _____ In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler _____

Smallest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____

Descrip. of riveting: cir. seams _____ long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____

Lap of plates or width of butt straps _____ Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____

Size of manhole in shell _____ Size of compensating ring _____ No. and Description of Furnaces in each boiler _____

Material _____ Outside diameter _____ Length of plain part _____ Thickness of plates _____

Description of longitudinal joint _____ No. of strengthening rings _____ Working pressure of furnace by the rules _____ Combustion chamber _____

plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____ Pitch of stays to ditto: Sides _____ Back _____

Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____ Material of stays _____ Diameter at smallest part _____

Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: Material _____ Thickness _____

Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____ Diameter at smallest part _____

Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____ Thickness _____ Material of Lower back plate _____

Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____ Diameter of tubes _____

Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____ Pitch across wide water spaces _____

Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and thickness of girder at centre _____

Length as per rule _____ Distance apart _____ Number and pitch of Stays in each _____

Working pressure by rules _____ Superheater or Steam chest: how connected to boiler _____ 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 _____

VERTICAL DONKEY BOILER— No. 4113 Description Cochran Manufacturers of steel Clydebridge
Made at Aman By whom made Cochran & Co. Aman S.S. When made 1906 Where fixed Litahed Working pressure 100
tested by hydraulic pressure to 200 Date of test 22/5/06 No. of Certificate 8098 Fire grate area _____ Description of safety valves Spring loaded
No. of safety valves 1 Area of each 4.04 Pressure to which they are adjusted 100 lb If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler No Dia. of donkey boiler 4'-9" Length 10'-3" Material of shell plates Steel Thickness 1/32" + 1/32" Range of tensile strength 29/32 Descrip. of riveting long. seams Double rivet Dia. of rivet holes 25/32 drilled Pitch of rivets 2 5/8
Lap of plating 3/8" Per centage of strength of joint _____ Rivets 46/10 Working pressure of shell by rules 108 lb Thickness of shell crown plates 5/16"
Radius of do. 2'-4 1/2" No. of Stays to do. None Dia. of stays _____ Diameter of furnace Top 2 ft Bottom 4'-3" Length of furnace 2 ft
Thickness of furnace plates 10/32 Description of joint Single lap Working pressure of furnace by rules 114 lb Thickness of furnace crown plates 8/16" Radius of do. 2 ft Stayed by _____ Diameter of uptake 11 x 16 7/8" Thickness of uptake plates 8/16"
Thickness of water tube plates 10/16" + 14/32"

The foregoing is a correct description,

FOR COCHRAN & CO., AMAN, LIMITED. Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1906 - May 8, 14, 22.
{ During erection on board vessel - - - }
Total No. of visits 3

[Signature]
Drawing no 2824

Is the approved plan of main boiler forwarded herewith

" " " donkey "

Lloyd's Register Foundation

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been made under survey the material & workmanship are of good description and hydraulic test satisfactory.

Certificate (if required) to be sent to the Surveyors as requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee...	£		When applied for.
Special ...	£		
Donkey Boiler Fee ...	£	2 : 2 :	When received.
Travelling Expenses (if any) £			19

James Morrison
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Clyde District

Committee's Minute

Glasgow - 4 JUN 1908

FRI. NOV 2 1908

Assigned

Transmit to London. Ward

