

Rpt. 5.

# REPORT ON BOILERS.

No. 23745  
TUES. 10 APR 1906

Port of Glasgow

Received at London Office

Date, first Survey 7th Mar Last Survey 30th Mar 1906

No. in Survey held at Aman

Reg. Book. Donkey Boilers for S.S.

(Number of Visits)  
7 Crishley  
Gothenburg

Gross Tons  
Net

Master \_\_\_\_\_ Built at \_\_\_\_\_ By whom built \_\_\_\_\_ when made \_\_\_\_\_  
Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made \_\_\_\_\_  
Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made \_\_\_\_\_  
Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

## 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. 3961 Description Cochrane Manufacturers of steel Stewart & Lloyd  
 Made at Aman By whom made Cochrane & Co Aman When made 1906 Where fixed Lothburgh Working pressure 100 lbs  
 tested by hydraulic pressure to 200 lbs Date of test 30/3/06 No. of Certificate 8062 Fire grate area 10 sq ft Description of safety valves Direct Spring  
 No. of safety valves 2 Area of each 49" Pressure to which they are adjusted 100 lbs If fitted with easing gear Yes If steam from main boilers can  
 enter the donkey boiler No Dia. of donkey boiler 5'-6" Length 10 ft 5" Material of shell plates Steel Thickness 3/16" & 5/16" Range of tensile  
 strength 24/32 tons Descrip. of riveting long. seams Double rivet top Dia. of rivet holes 25/32" Water pressure on drilled Pitch of rivets 2 7/8"  
 Lap of plating 3 3/8" Per centage of strength of joint \_\_\_\_\_ Rivets 696 Working pressure of shell by rules 102 lbs Thickness of shell crown plates 3/16"  
 Radius of do. 4'-9" No. of Stays to do. 4 Gunst connects by angles to sides & crown Diameter of furnace Top 2'-3" Bottom 4'-6" Length of furnace 2'-6"  
 Thickness of furnace plate 15/32" Description of joint Lap single rivet Working pressure of furnace by rules 104 lbs Thickness of furnace crown  
 plates 8/16" Radius of do. 2'-3" Stayed by \_\_\_\_\_ Diameter of uptake 3'-2 1/2" Thickness of uptake plates 8/16"  
 Thickness of \_\_\_\_\_ plates 19" + 23" back plate top stayed by Gunst The foregoing is a correct description,  
 For COCHRANE & CO., AMAN, LIMITED, Manufacturer.

Dates of Survey while building  
 During progress of work in shops - - -  
 During erection on board vessel - - -  
 Total No. of visits \_\_\_\_\_

For COCHRANE & CO., AMAN, LIMITED, Manufacturer.  
A. J. Bell Director.  
 Drawing No. 5554  
 Is the approved plan of main boiler forwarded herewith \_\_\_\_\_  
 " " " donkey " " \_\_\_\_\_  
 Lloyd's Register  
 002194-002205-0126

For Lothburgh

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

*This boiler has been made under survey and the materials + workmanship are of good description the test satisfactory*

Certificate (if required) to be sent to the Registrar of Companies (Mint)

The amount of Entry Fee... £ : : When applied for.  
 Special ... £ : : Monthly  
 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.

**Glasgow - 9 APR 1906**

**Clyde District**

Committee's Minute

Assigned *Transmit to London*

FRI. 31 AUG. 1906  
 All minute on  
 Got Rph  
 No 1283