Rpt. 5.

REPORT ON BOILERS.

Gls. No. 24238.
Lds. No. 22948

Port of Glasgow — Received at London Office THUR. 20 SEP 1906

No. in Reg. Book. — Survey held at Annan; Date, first Survey 8th May 06 Last Survey 6th July 19 (Number of Visits 10)

on the Donkey Boiler for R. Thompson & Sons No 243 S.S. "Cedargrove."

Tons Gross 2348·49 Net 1496·93

Master J. R. Small Built at Sunderland By whom built R. Thompson & Sons When built 1906

Engines made at Sunderland By whom made R. & W. Clark Ltd when made do

Boilers made at do By whom made do when made do

Registered Horse Power 229 Owners The Steamship Mary Co Ltd. Port belonging to Glasgow

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 rivets plate 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 top bottom Thickness of plates crown bottom

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 4124 Description Cochran Manufacturers of steel Steel Coy of Scotland

Made at Annan By whom made Cochran & Co Annan Ltd When made 1906 Where fixed Stokehold Working pressure 100 lbs

tested by hydraulic pressure to 200 lbs Date of test 6/4/06 No. of Certificat 8140 Fire grate area 23 ft Description of safety valves Direct Spring

No. of safety valves Two Area of each 4·9" 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 6'-6" Length 13'-6" Material of shell plates Steel Thickness 9/16" + 19/32" Range of tensile strength 24/32 tons Descrip. of riveting long. seams Double rivet Dia. of rivet holes 24/32" ~~Whether punched or~~ drilled — Pitch of rivets 2 3/4"

Lap of plating 4 1/8" Per centage of strength of joint Rivets 69 % Plates 68 % Working pressure of shell by rules 102 lbs Thickness of shell crown plates 9/16"

Spherical Radius of do 3'-3" No. of Stays to do. — Dia. of stays — Diameter of furnace Top 2'-9" radius Bottom 6'-6" Length of furnace 2'-9"

Thickness of furnace plates 9/16" Description of joint Solid dished with flanging at bottom Working pressure of furnace by rules 102 lbs Thickness of furnace crown plates 9/16" Radius of do. 2'-9" Stayed by — Diameter of uptake 3'-22" Thickness of uptake plates 9/16"

Thickness of — tube plates 13/16" + 23/32" Gusset stays to top of tube plate —

The foregoing is a correct description,

For COCHRAN & CO., ANNAN, LIMITED

Manufacturer.

Dates of Survey while building — During progress of work in shops: 1906. May 8. 14. 22. 31. June 5. 8. 15. 21. 28. July 6

During erection on board vessel: Drawing No 5412

Total No. of visits 10

Is the approved plan of main boiler forwarded herewith —

" " " donkey " " " No

RETAIN

W438 – 00010

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 & the Hydraulic test proved Satisfactory

Now fitted on board, secured in place, & tested under steam.
Eligible for Record in Register Book.

E.J.S.

Certificate (if required) to be sent t

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

The amount of Entry Fee...	£	:	When applied for. 19
Special	£	:	
Donkey Boiler Fee ...	£ 2	: 2	When received. 22-9-06 19
Travelling Expenses (if any))	£	:	

24/9/06

James Hollison
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.
Clyde District

Committee's Minute Glasgow 23 JUL 1906 FRI. 21 SEP 1906

Assigned Transmit to Sunderland.