

## REPORT ON BOILERS.

No. 23304

Port of *Sunderland*

FRI. 14 JUN 1907

Received at London Office

No. in Survey held at *Sunderland*Date, first Survey 10<sup>th</sup> October, 07 Last Survey 23<sup>rd</sup> May 1907

Reg. Book.

(Number of Visits 64)

on the

*Steel Lini S. I. Principe di Piemonte*Tons { Gross 5208.94  
Net 3312.74Master *V. Domgironi* Built at *Sunderland* By whom built *Sir J. Laing & Sons L<sup>d</sup>* When built *1907*Engines made at *Sunderland* By whom made *G. Clark L<sup>d</sup>* when made *1907*Boilers made at *Sunderland* By whom made *James Mac Coll & Pollock* when made *1906*Registered Horse Power Owners *Lloyd Sabando & Anondi Har* Port belonging to *Genoa*MULTITUBULAR BOILERS—~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel *James Mac Coll & Pollock L<sup>d</sup>*(Letter for record *5A*) Total Heating Surface of Boilers *932 ft<sup>2</sup>* Is forced draft fitted *no* No. and Description ofBoilers *one single ended, cylindrical mult* Working Pressure *110 lbs* Tested by hydraulic pressure to *220 lbs* Date of test *14.12.06*No. of Certificate *2562* Can each boiler be worked separately *✓* Area of fire grate in each boiler *30.2 ft<sup>2</sup>* No. and Description ofsafety valves to each boiler *Two direct spring* Area of each valve *7.07 sq* Pressure to which they are adjusted *115 lbs*Are they fitted with easing gear *yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *no*Smallest distance between boilers or uptakes and bunkers or woodwork *12"* Mean dia. of boilers *10' 6"* Length *10' 6"*Material of shell plates *steel* Thickness *3/4"* Range of tensile strength *28/32* Are the shell plates welded or flanged *no*Descrip. of riveting: cir. seams *d.v. lap.* long. seams *L.v. lap.* Diameter of rivet holes in long. seams *1"* Pitch of rivets *3.556"*Lap of plates or width of butt straps *6 5/8"* Per centages of strength of longitudinal joint rivets *75.09* Working pressure of shell byrules *115.33 lbs* Size of manhole in shell *16 x 12"* Size of compensating ring *6 x 3/4"* plate *71.87* No. and Description of Furnaces in eachboiler *2 plain* Material *steel* Outside diameter *37 1/2"* Length of plain part top *6' 6"* Thickness of plates crown *19/32*Description of longitudinal joint *weld* No. of strengthening rings *✓* Working pressure of furnace by the rules *119.2 lbs* Combustion chamberplates: Material *steel* Thickness: Sides *19/32* Back *5/8"* Top *19/32* Bottom *7/8"* Pitch of stays to ditto: Sides *11 3/4 x 9"* Back *10 1/2 x 10 3/4"*Top *2 1/2 x 9"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *111 + 119* Material of stays *Iron* Areasmallest part *1.79* Area supported by each stay *05.75* Working pressure by rules *119 lbs* End plates in steam space: Material *steel* Thickness *7/8"*Pitch of stays *17 3/4 x 15 1/2"* How are stays secured *d.n.w.* Working pressure by rules *123.54* Material of stays *Iron* AreaArea supported by each stay *275.125* Working pressure by rules *112 lbs* Material of Front plates at bottom *steel* Thickness *7/8"* Material ofLower back plate *steel* Thickness *7/8"* Greatest pitch of stays *12 x 10 3/4"* Working pressure of plate by rules *203 lbs* Diameter of tubes *3 1/4"*Pitch of tubes *4 1/2 x 4 1/2"* Material of tube plates *steel* Thickness: Front *7/8"* Back *11/16"* Mean pitch of stays *9 x 13 1/2"* Pitch across widewater spaces *14"* Working pressures by rules *140 lbs* Girders to Chamber tops: Material *steel* Depth and thickness ofgirder at centre *6 3/4 x 1 1/2"* Length as per rule *29 15/16"* Distance apart *8 1/2"* Number and pitch of Stays in each *2-9"*Working pressure by rules *113 lbs* Superheater or Steam chest: how connected to boiler *✓* Can the superheater be shut off and the boiler workedseparately *✓* Diameter *✓* Length *✓* Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivetholes *✓* 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. Description Manufacturers of steel

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 Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile

strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Rivets Working pressure of shell by rules 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 Working pressure of furnace by rules Thickness of furnace crown

plates Stayed by Diameter of uptake Thickness of uptake plates Thickness of water tubes

The foregoing is a correct description,

JAMES MAC COLL &amp; POLLOCK LTD

Manufacturer.

Please see Machinery report

Is the approved plan of main boiler forwarded herewith

" " " donkey " "

© 2020

Lloyd's Register  
Foundation

W893-0082



**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c. *This donkey boiler has been constructed under special survey, the workmanship and materials used are both of good quality. Secured in place above cross bunker between stowholds & tested under steam.*

Certificate (if required) to be sent to

The amount of Entry Fee...	£	:	:	When applied for,
Special ... ..	£	:	:	12.6.1907
Donkey Boiler Fee ...	£	2	2	When received,
Travelling Expenses (if any) £	:	:	:	12.6.1907

*R.W. Croucher. E.J. Stoddard*  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

JUN 18 1907

Committee's Minute

Assigned