

REPORT ON BOILERS.

No. 6106

TUES. 22 MAY 1906

Port of Belfast Received at London Office
 No. in Survey held at Belfast Date, first Survey Feb. 27th 1905 Last Survey May 12th 1906
 Reg. Book. S.S. "Matheran" (Number of Visits 89)
 on the Belfast Tons { Gross 7654 Net 4928
 Master Belfast Built at Belfast By whom built Harland & Wolff L. When built 1906
 Engines made at Belfast By whom made " when made "
 Boilers made at " By whom made " when made "
 Registered Horse Power " Owners J. Brocklebank & Co. L. Port belonging to Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel D. Colville & Co. L.

(Letter for record S.) Total Heating Surface of Boilers 4212 sq ft As forced draft fitted No No. and Description of Boilers 2 - Single End Cyl. Working Pressure 215 lbs Tested by hydraulic pressure to 430 lbs Date of test 3-1-06
 No. of Certificate 369 Can each boiler be worked separately Yes Area of fire grate in each boiler 57 1/2 sq ft No. and Description of safety valves to each boiler 2 - Direct Spring Area of each valve 7.64 sq in Pressure to which they are adjusted 215 lbs
 Are they fitted with easing gear Yes 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 About 40" Mean dia. of boilers 14'-5 1/2" Length 10'-6"
 Material of shell plate Steel Thickness 1 1/2" Range of tensile strength 29-32 Are the shell plates welded or flanged No
 Descrip. of riveting: cir. seams Lap long. seams Butt Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 10"
 Lap of plates or width of butt straps 22 1/4" Per centages of strength of longitudinal joint rivets 93.2 plate 84.3 Working pressure of shell by rules 246 lbs Size of manhole in shell 16" x 12" Size of compensating ring Mc Keils No. and Description of Furnaces in each boiler 3 - Dighton Material Steel Outside diameter 46 1/4" Length of plain part 4'-7" Thickness of plates crown 3/8" bottom 1/2"
 Description of longitudinal joint Weld No. of strengthening rings 2 to on Working pressure of furnace by the rules 244 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back 5/8" Top 1 1/2" Bottom 3/4" Pitch of stays to ditto: Sides 7 1/4" x 7" Back 8 1/4" x 7 1/2" Top 7 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts inside Working pressure by rules 216 lbs Material of stays Steel Diameter at smallest part 1 1/4" x 1 1/8" Area supported by each stay 54 1/4" Working pressure by rules 218 lbs plates in steam space: Material Steel Thickness 1 1/2"
 Pitch of stays 16" x 14 1/2" How are stays secured Nuts made Working pressure by rules 286 lbs Material of stays Steel Diameter at smallest part 2 1/2" x 2 1/2"
 Area supported by each stay 232 sq in Working pressure by rules 240 lbs Material of Front plates at bottom Steel Thickness 5/8" Material of Lower back plate Steel Thickness 1/2" Greatest pitch of stays 12 1/2" x 8 1/4" Working pressure of plate by rules 604 lbs Diameter of tubes 2 1/4"
 Pitch of tubes 4" x 4" Material of tube plate Steel Thickness: Front 1 1/2" x 1 1/8" Back 1 1/2" Mean pitch of stays 8" x 8" Pitch across wide water spaces 14" Working pressures by rules 338 lbs with 7 Double Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 8" x (7/8" x 2) Length as per rule 27 1/2" Distance apart 7 1/2" Number and pitch of Stays in each 3-7 1/2"
 Working pressure by rules 253 lbs 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. Description Manufacturers of steel

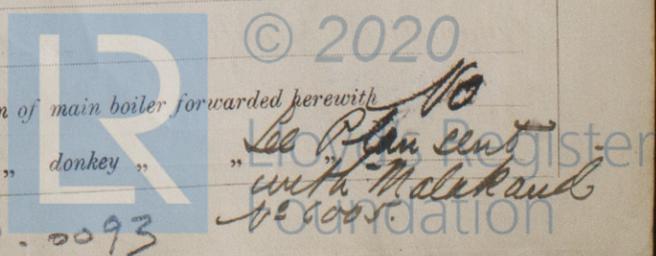
Made at By whom made When made Where fixed Working pressure
 tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves
 No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter 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
 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
 Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

The foregoing is a correct description,
for Harland & Wolff L. Manufacturer.
W.A.

See other sheets

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

Is the approved plan of main boiler forwarded herewith No
 " " " donkey " See Plan sent with Matheran
W 849-0093



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

Spare Gear

Propeller blade
 Pair Crank pin brasses
 - Cross head -
 Air pump bucket rod complete
 - head valve
 Sets piston rings H.P. & I.P.
 H.P. valve spindle neck bush.
 I.P.
 Impeller & spindle for Circulating Pump
 Eccentric Strap complete
 4 Cyl. escape valve springs
 50 Condenser tubes
 Sets studs & nuts for cylinder flange.
 Feed pump escape valve spring
 Boiler tubes set and all gear to Lloyd's Rules extra

Donkey Pumps

Weirs 12 1/2" x 9 1/2" x 26" Feed
 Woodsons 7" x 5" x 12" Auxiliary Feed.
 Watsons 12" x 10" x 14" Ballast
 Lau & Wolffs 9" x 6" x 10" General
 Crap Pump set?

Certificate (if required) to be sent to

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

R. J. Bennett
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. 25 MAY 1906

Assigned *See Memorandum*
 on attached report