

REPORT ON BOILERS.

No. 6158

THUR. 23 AUG 1906

Port of Belfast Received at London Office Belfast
No. in Belfast Date, first Survey Sept. 16th Last Survey Aug 13th 1906
Reg. Book. SS. Bronsa (Number of Visits 74) Gross 7970
on the P. Fletcher Built at Belfast By whom built Harland & Wolff Ltd Tons { Net 4523
Engines made at Belfast By whom made Harland & Wolff Ltd When built 1906
Boilers made at Belfast By whom made Harland & Wolff Ltd when made
Registered Horse Power 1000 Owners Pacific Steam Navigation Co Port belonging Liverpool

MULTITUBULAR BOILERS—MAIN, Single End Manufacturers of Steel J. Colville & Sons Ltd
(Letter for record S) Total Heating Surface of Boilers 6903 sq ft Is forced draft fitted No No. and Description of
Boilers 3 Single End Cylindrical Working Pressure 215 lbs Tested by hydraulic pressure to 430 lbs Date of test 30-4-06
No. of Certificate 377 Can each boiler be worked separately Yes Area of fire grate in each boiler 58 sq ft and Description of
safety valves to each boiler 2 Direct Spring Area of each valve 8.29 sq ft 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 Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 30" Mean dia. of boilers 15'-0" Length 10'-6"
Material of shell plates Steel Thickness 1 1/2" Range of tensile strength 29-32 tons 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 1/2" Per centages of strength of longitudinal joint 84.0 Working pressure of shell by
rules 247 lbs Size of manhole in shell 16" x 12" Size of compensating rivets 1 1/2" No. and Description of Furnaces in each
boiler 3-Morrison Material Steel Outside diameter 47" Length of plain part 10' Thickness of plates 3 1/8"
Description of longitudinal joint Weld No. of strengthening rings 0 Working pressure of furnace by the rules 241 lbs Combustion chamber
plates: Material Steel Thickness: Sides 5" Back 5" Top 5" Bottom 5" Pitch of stays to ditto: Side 8 1/2" x 7 1/2" Back 8 1/2" x 7 1/2"
Top 8 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 217 lbs Material of stays Steel Diameter at
smallest part 1 1/2" Area supported by each stay 6 1/2 sq ft Working pressure by rule 257 lbs plates in steam space: Material Steel Thickness 1 1/4"
Pitch of stays 7 1/2" x 15" How are stays secured Nuts & Washers Working pressure by rule 279 lbs Material of stays Steel Diameter at smallest part 2 1/2"
Area supported by 1 stay 262 1/2 sq ft Working pressure by rules 246 lbs Material of Front plates at bottom Steel Thickness 1 1/2" Material of
Lower back plate Steel Thickness 1 1/2" Greatest pitch of stays 13" Working pressure of plate by rule 157 lbs Diameter of tubes 2 1/4"
Pitch of tubes 4" x 4" Material of tube plates Steel Thickness: Front 1 1/2" Back 1 1/2" Mean pitch of stays 8" x 8" Pitch across wide
water spaces 14 1/2" Working pressures by rules 254 lbs with 1 1/2" Double Orders to Chamber tops: Material Iron Depth and thickness of
girder at centre 9" x (8" x 2) Length as per rule 30 1/2" Distance apart 8 1/2" Number and pitch of Stays in each 3-7 1/2"
Working pressure by rules 221 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
separately Yes Diameter 10" Length 10' Thickness of shell plates 1 1/2" Material Steel Description of longitudinal joint Weld Diam. of rivet
holes 1 1/8" Pitch of rivets 10" Working pressure of shell by rules 215 lbs Diameter of flue 10" Material of flue plates Steel Thickness 1 1/2"
If stiffened with rings Yes Distance between rings 10" Working pressure by rules 215 lbs End plates: Thickness 1 1/2" How stayed Stayed
Working pressure of end plates 215 lbs Area of safety valves to superheater 8.29 sq ft Are they fitted with easing gear Yes

VERTICAL DONKEY BOILER— No. 1 Description Vertical Manufacturers of steel Harland & Wolff Ltd
Made at Belfast By whom made Harland & Wolff Ltd When made 1906 Where fixed On board Working pressure 215 lbs
tested by hydraulic pressure to 430 lbs Date of test 30-4-06 No. of Certificate 377 Fire grate area 58 sq ft Description of safety valves 2 Direct Spring
No. of safety valves 2 Area of each 8.29 sq ft Pressure to which they are adjusted 215 lbs If fitted with easing gear Yes If steam from main boilers can
enter the donkey boiler Yes Dia. of donkey boiler 15'-0" Length 10'-6" Material of shell plates Steel Thickness 1 1/2" Range of tensile
strength 29-32 tons Descrip. of riveting long. seams Lap Dia. of rivet holes 1 1/8" Whether punched or drilled Yes Pitch of rivets 10"
Lap of plating 22 1/2" Per centage of strength of joint 84.0 Rivets 1 1/2" Working pressure of shell by rules 215 lbs Thickness of shell crown plates 1 1/2"
Radius of do. 10' No. of Stays to do. 3 Dia. of stays 1 1/2" Diameter of furnace Top 10' Bottom 10' Length of furnace 10'
Thickness of furnace plates 1 1/2" Description of joint Weld Working pressure of furnace by rules 215 lbs Thickness of furnace crown
plates 1 1/2" Radius of do. 10' Stayed by Stayed Diameter of uptake 10" Thickness of uptake plates 1 1/2"
Thickness of water tubes 1 1/2"

The foregoing is a correct description,
for Harland & Wolff Ltd Manufacturer.

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

See other sheets

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.)

3 Crankshaft
 1 Propeller
 2 Halls Man. Bronze
 1 Main Cross heads guide blocks
 2 Piston Rods & nuts
 1 Pair top end bushes
 1 Pair bottom
 2 Eccentric Rods
 2 Pulleys
 2 Straps
 1 Air pump rod
 1 bucket
 1 delivery valve
 Set pump lever bushes
 2 Feed or Bilge pump plungers
 2 Main slide valve & spindles
 1 Thrust ring
 Set packing rings for each Piston valve set
 and all gear to Lloyds Rules additional

Last
 89 ton
 123
 264
 182
 153
 106
 118
 109
 147
 54
 41
 1163

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

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

Committee's Minute

FRI. 24 AUG 1906

Assigned

R. L. Pennington

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



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Foundation

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 Note