

# REPORT ON BOILERS.

No. 6181  
SAT. 29 SEP 1906

Port of Belfast Received at London Office  
 No. in Survey held at Belfast Date, first Survey See other sheet 19  
 Reg. Book. S.S. "Japan" (Number of Visits) Gross 6013  
 on the Belfast Tons Net 1806  
 Master W. J. Clark Built Belfast By whom built Workman Clark & Co. Ltd. When built 1906  
 Engines made at Belfast By whom made " when made "  
 Boilers made at " By whom made " when made "  
 Registered Horse Power " Owners A. J. Clark Port belonging to Calcutta

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel Eng. Ken. & Nettletons  
 (Letter for record 3) Total Heating Surface of Boilers 2304 sq ft As forced draft fitted Yes No. and Description of  
 Boilers One-Single End Cyl. Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 8-8-06  
 No. of Certificate 384 Can each boiler be worked separately ✓ Area of fire grate in each boiler 5.95 sq ft No. and Description of  
 safety valves to each boiler 2 - Direct Springs Area of each valve 9.62 sq Pressure to which they are adjusted 200 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 18" Mean dia. of boilers 14'-6" Length 11'-6"  
 Material of shell plates Steel Thickness 1 1/2" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams Lap Riv. long. seams Butt Riv. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 9 1/2"  
 Lap of plates or width of butt straps 2 1/4" Per centages of strength of longitudinal joint rivets 88.2 Working pressure of shell by  
 rules 228 lbs Size of manhole in shell 16" x 12" Size of compensating rivets McNells No. and Description of Furnaces in each  
 boiler 3 - Right angle Material Steel Outside diameter 47 1/4" Length of plain part top 4" Thickness of plates crown 3 1/2" bottom 3 1/4"  
 Description of longitudinal joint Weld No. of strengthening rings ✓ Working pressure of furnace by the rule 234 lbs Combustion chamber  
 plates: Material Steel Thickness: Sides 5" Back 4 1/2" Top 5" Bottom 1" Pitch of stays to ditto: Sides 8" x 8" Back 8 1/2" x 8 1/2"  
 Top 8" x 8" If stays are fitted with nuts or riveted heads Nuts in ends Working pressure by rules 211 lbs Material of stay Steel Diameter at  
 smallest part 1 1/8" supported by each stay Working pressure by rule 232 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 281 lbs Material of stays Steel Diameter at smallest part 2 1/2" w/ 1/16"  
 Area supported by each stay Working pressure by rules 275 lbs Material of Front plates at bottom Steel Thickness 1" Material of  
 Lower back plate Steel Thickness 1" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 281 lbs Diameter of tubes 2 1/2"  
 Pitch of tubes 3 5/8" x 3 3/8" Material of tube plate Steel Thickness: Front 1" Back 4/16" Mean pitch of stays 7 1/8" x 7 1/4" Pitch across wide  
 water spaces 13 1/2" Working pressures by rules 212 lbs Girders to Chamber tops: Material Steel Depth and thickness of  
 girder at centre 10" x (3/4" x 2) Length as per rule 32 1/2" Distance apart 8" x 7 1/4" Number and pitch of Stays in each 3-8"  
 Working pressure by rules 282 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 "  
 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 " Radius of do. " Stayed by " Diameter of uptake " Thickness of uptake plates "  
 Thickness of water tubes "

The foregoing is a correct description,  
 FOR WORKMAN, CLARK & CO. LIMITED.  
M. J. Bell Manufacturer.

See other sheet

Is the approved plan of main boiler forwarded herewith  
 " donkey " " "



If not, state whether, and when, one will be sent.

[Im. 1205 Copyable Ink.]

Spae Gear

- 1 Propeller Shaft
  - 3 Crank
  - 1 Shaft
  - 4 Propeller blades + 6 studs + nuts.
  - 1 Pair Crank pin bushes
  - 1 - Crosshead
  - 1 Air pump rod
  - 1 Set - - - valves guards studs
  - 1 set H.P. & M.P. piston packing rings
  - 1 - - - piston valve packing rings
  - 2 Circulating pump fans & spindles
  - 3 Eccentric straps complete
  - 1 Piston rod
  - 1 Breakdown coupling
- Escape safety valves & springs boiler tubes set out  
and all gear to Lloyd's Rules extra.

Donkey Pumps

2 Meir's Feed	12 1/2" x 9 1/2" x 26"	
Sanitary	6" x 6" x 6"	Duplex
General Service	9" x 6" x 10"	
Ballast	8" x 10" x 10"	
Tex. Feed	6" x 4 1/2" x 6"	

Certificate (if required) to be sent to the Surveyors and requested not to write on or within 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

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

Committee's Minute

TUES. OCT 2 1906

Assigned *see minute on attached report*

