

REPORT ON BOILERS.

No. 29691

3 APR 1928

Received at London Office

Date of writing Report 1928 When handed in at Local Office - 2 APR 1928 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey Last Survey March 24 1928

Reg. Book. 39984 on the S.S. "BADJESTAN" (Number of Visits) Gross 5573 Net 3353

Master Built at Sunderland By whom built Bartram & Sons, L^d Yard No. 260 When built 1928

Engines made at Sunderland By whom made MacColl & Pollock, L^d Engine No. 352 When made 1928

Boilers made at Sunderland By whom made MacColl & Pollock, L^d Boiler No. 677 When made 1928

Nominal Horse Power 415 Owners Hindustan Steam Shipping Co. L^d Port belonging to Newcastle.

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel The Steel Company of Scotland Limited (Letter for Record (S))

Total Heating Surface of Boilers 1023 sq ft Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers One - Single ended Marine type. Plain furnaces. Working Pressure 180 lbs sq

Tested by hydraulic pressure to 320 lbs sq Date of test 28-9-27 No. of Certificate 3960 Can each boiler be worked separately

Area of Firegrate in each Boiler 32.135 sq ft No. and Description of safety valves to each boiler Two. Direct Spring loaded.

Area of each set of valves per boiler { per Rule 6.56 sq ft as fitted 7.94 sq ft Pressure to which they are adjusted 185 lbs sq Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No. Non return valves fitted.

Smallest distance between boilers or uptakes and bunkers or woodwork Fitted in two Decks Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Fitted in two Decks Is the bottom of the boiler insulated No

Largest internal dia. of boilers 10' 10 3/16" Length 10' - 6" (FULL) Shell plates: Material Steel Tensile strength 28 to 32 tons sq

Thickness 29/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R. Lap inner 3 5/8

long. seams I.R.D.B.S. Diameter of rivet holes in { circ. seams 1 1/16" long. seams 1" Pitch of rivets { 7 1/16"

Percentage of strength of circ. end seams { plate 70.6 rivets 44.3 Percentage of strength of circ. intermediate seam { plate 85.84 rivets 94.58

Percentage of strength of longitudinal joint { plate 85.84 rivets 94.58 combined 90.62 Working pressure of shell by Rules 181 lbs sq

Thickness of butt straps { outer 13/16" inner 7/8" No. and Description of Furnaces in each Boiler Two. Plain furnaces.

Material Steel Tensile strength 26 to 30 tons sq Smallest outside diameter 3' 4"

Length of plain part { top Thickness of plates { crown 23/32" bottom 32/32" Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 183 lbs sq

End plates in steam space: Material Steel Tensile strength 26 to 30 tons sq Thickness 1" Pitch of stays 18 1/2" x 13"

How are stays secured Double Nuts & Washers outside Working pressure by Rules 180 lbs sq

Tube plates: Material { front Steel back Steel Tensile strength { 26 to 30 tons sq Thickness { 13/16"

Mean pitch of stay tubes in nests 11 1/8" Pitch across wide water spaces 13 1/2" Working pressure { front 188 lbs sq (W.W. space) back 192 lbs sq

Girders to combustion chamber tops: Material Steel Tensile strength 26 to 30 tons sq Depth and thickness of girder

at centre 9 1/4" x 1 1/16" Length as per Rule 35.875" Distance apart 9" No. and pitch of stays

in each 3 x 8 1/2" Working pressure by Rules 180.5 lbs sq Combustion chamber plates: Material Steel

Tensile strength 26 to 30 tons sq Thickness: Sides 5/8" Back 21/32" Top 21/32" Bottom 5/8"

Pitch of stays to ditto: Sides 8 3/4" x 8 1/2" Back 9 1/4" x 8 3/4" Top 9" x 8 1/2" Are stays fitted with nuts or riveted over Fitted with nuts.

Working pressure by Rules Sides 181.8 lbs sq Back 185 lbs sq Top 195.5 lbs sq Front plate at bottom: Material Steel Tensile strength 26 to 30 tons sq

Thickness 27/32" Lower back plate: Material Steel Tensile strength 26 to 30 tons sq Thickness 13/16"

Pitch of stays at wide water space 13 1/4" x 8 3/4" Are stays fitted with nuts or riveted over Fitted with nuts.

Working Pressure 213.5 lbs sq Main stays: Material Steel Tensile strength 28 to 32 tons sq

Diameter { At body of stay, 2 1/2" No. of threads per inch 6 Area supported by each stay 240.5 sq

Working pressure by Rules 184 lbs sq Screw stays: Material Steel Tensile strength 26 to 30 tons sq

Diameter { At turned off part, 1 5/8" No. of threads per inch 9 Area supported by each stay Sides 65.6 sq Back 80.8 sq Top 76.5 sq



