

pt. 5a.

# REPORT ON BOILERS.

No. 6778

WED. 14 JUN 1911  
THUR. 25 MAY 1911

Received at London Office

When handed in at Local Office 29.4.11 Port of MIDDLESBROUGH ON TYNES

No. in Survey held at Middlesbrough Date, First Survey 12<sup>th</sup> Dec, 1910 Last Survey 19<sup>th</sup> April 1911

on the Main Boiler No: 4564 is "Harvey Hague" (Number of Visits 16) Gross 295 Tons Net 115

Built at Middlesbrough By whom built Smith's Dock Co. Ld. (No: 470) When built 1911

Engines made at N. Shields By whom made The Shields Eng. & D. S. Co. Ld. (No: 229) When made 1911

Boilers made at Middlesbrough By whom made Richardsons, Westgarth & Co. Ld. when made 1911

Registered Horse Power Owners New Dock Stevedoring Co Port belonging to Fleetwood

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Spencer Lonsdale

Letter for record (5) Total Heating Surface of Boilers 1599 sq. ft. Is forced draft fitted No. and Description of Boilers One S. E. Cyl. Horiz. Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 13.4.11.

No. of Certificate 4625 Can each boiler be worked separately  Area of fire grate in each boiler 52 1/2 sq. ft. No. and Description of Safety valves to each boiler Area of each valve Pressure to which they are adjusted

Are they fitted with easing gear  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 Int. Mean dia. of boilers 13'-6" Length 11'-6"

Material of shell plates Steel Thickness 1 3/32" Range of tensile strength 28 3/4 - 32 Are the shell plates welded or flanged No

Strip of riveting: cir. seams B.R. Lap long. seams B.R. 5 Rivets Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 8 1/4"

Width of plates or width of butt straps 18" Per centages of strength of longitudinal joint rivets 91.8 plate 85.6 Working pressure of shell by rules 184 lbs Size of manhole in shell 16" x 12" Size of compensating ring 34 1/2" x 29" x 1 3/32" No. and Description of Furnaces in each

Three plain Material Steel Outside diameter 3'-4" Length of plain part top 6'-11 3/32" Thickness of plates crown 13/16" bottom 9/25" No. of strengthening rings 3

Description of longitudinal joint Welded Working pressure of furnace by the rules 190 lbs Combustion chamber

Material Steel Thickness: Sides 1 1/16" Back 23/32" 11/16" Top 23/32" Bottom 1 1/16" Pitch of stays to ditto: Sides 9" x 8 1/2" Back 9 1/4" x 9 1/4"

1 1/4" x 8 1/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 185 Material of stays Steel Diameter at smallest part 2.09 Area supported by each stay 92.8 Working pressure by rules 203 End plates in steam space: Material Steel Thickness 1 1/4"

How are stays secured B.R. + W. Working pressure by rules 185 Material of stays Steel Area Diameter at smallest part 7.06

Area supported by each stay 380 Working pressure by rules 193 Material of Front plates at bottom Steel Thickness 1" Material of

Back plate Steel Thickness 29/32" Greatest pitch of stays 15" x 9" Working pressure of plate by rules 185 Diameter of tubes 3 1/2"

Material of tube plates Steel Thickness: Front 1" Back 25/32" Mean pitch of stays 11 7/8" x 9 1/2" Pitch across wide

spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and thickness of

at centre 10 1/2" x 1 7/8" Length as per rule 3'-0 1/2" Distance apart 11 1/4" Number and pitch of Stays in each 30 8 1/4"

Working pressure by rules 190 lbs Superheater or Steam chest; how connected to boiler None 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

Pitch of rivets  Working pressure of shell by rules  Diameter of flue  Material of flue plates  Thickness

Are they 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

For and on behalf of The foregoing is a correct description, RICHARDSONS, WESTGARTH & Co., Ltd. Manufacturer.

Dates of Survey During progress of work in shops 1910. Dec. 4, 16, 28, 1911. Jan. 11, 20, Feb. 4, 8, 17, 24 Is the approved plan of boiler forwarded herewith yes

while building During erection on board vessel Mar. 8, 14, 22, 25, Apr. 3, 13, 19 Total No. of visits 16

See Newcastle Report on weekly

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under Special Survey, is of good material and workmanship and has been tested by hydraulic pressure with satisfactory results.

SURVEY REQUEST NO. 210 ATTACHED.

Survey Fee ... £ 5 : 7 : } When applied for, MONTHLY P/C.

Travelling Expenses (if any) £ : : } When received, 31.5.11

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