

Rpt. 5a.

# REPORT ON BOILERS.

No. H1353

Received at London Office 11 NOV 1930

Date of writing Report 10.11.1930 When handed in at Local Office 10 Nov. 1930 Port of HULL

No. in Reg. Book 67705 Survey held at HULL Date, First Survey 23 July Last Survey 4 Nov. 1930  
(Number of Visits 19) Tons {Gross 380.11  
Net 153.62

on the STEAM TRAWLER "RYLSTON"

Master Henriksen & Co Ltd Built at Beverley By whom built Book, Welton & Gemmell Ltd Yard No. 556 When built 1930

Engines made at Hull By whom made Charles D. Holmes & Co Ltd Engine No. 1408 When made 1930

Boilers made at Hull By whom made Charles D. Holmes & Co Ltd Boiler No. 1408 When made 1930

Nominal Horse Power 104 Owners Henriksen & Co Ltd Port belonging to Hull

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Witkowitzer Bergbau und Eisenhütten G/S (Letter for Record         )

Total Heating Surface of Boilers 1866 sq ft Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers One single ended return tube 1SB. Working Pressure 210 #

Tested by hydraulic pressure to 365 # Date of test 3-10-30 No. of Certificate 3807 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 50.47 sq ft No. and Description of safety valves to each boiler 2 Spring loaded.

Area of each set of valves per boiler {per Rule 10.37 sq ft  
as fitted 11.89 "} Pressure to which they are adjusted 210 # 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 6 1/4 " Is oil fuel carried in the double bottom under boilers ✓

Smallest distance between shell of boiler and tank top plating          Is the bottom of the boiler insulated ✓

Largest internal dia. of boilers 14' 3 " Length 10' 8 " Shell plates: Material Steel Tensile strength 29/33 tons

Thickness 1 21/64 " Are the shell plates welded or flanged flanged Description of riveting: circ. seams {end OK  
inter. 3 3/4 "

Long. seams SR. SWS. Diameter of rivet holes in {circ. seams 1 11/32 "  
long. seams         } Pitch of rivets {9 1/4 "

Percentage of strength of circ. end seams {plate 64.00  
rivets 48.2} Percentage of strength of circ. intermediate seam {plate           
rivets         }

Percentage of strength of longitudinal joint {plate 85.6  
rivets 85.5} Working pressure of shell by Rules 213 #

Thickness of butt straps {outer 1 1/32 "  
inner 1 1/32 "} No. and Description of Furnaces in each Boiler 3 Plain. 3 pf.

Material Steel Tensile strength 26/30 tons Smallest outside diameter 3' 6 "

Length of plain part {top 6' 7 1/2 "  
bottom 5'-10 "} Thickness of plates {crown 1 3/16 "  
bottom         } Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom          Working pressure of furnace by Rules 219 #

Stays in steam space: Material Steel Tensile strength 26/30 tons Thickness 1 3/16 " Pitch of stays 19x18 + 20x17

Are stays secured Double nuts & washers Working pressure by Rules 220 #

Stays: Material {front Steel  
back "} Tensile strength {26/30 tons} Thickness {1 5/16 "  
7/8 "}

Pitch of stay tubes in nests 10.62 " Pitch across wide water spaces 12" x 9 1/2 " Working pressure {front 260 #  
back 243 #}

Stays to combustion chamber tops: Material Steel Tensile strength 29/33 tons Depth and thickness of girder         

Centre 10" x 1 3/4 " Length as per Rule 36 1/4 " Distance apart 9 1/2 " No. and pitch of stays         

Each 3 @ 8 3/4 " Working pressure by Rules 227 # Combustion chamber plates: Material Steel

Tensile strength 26/30 tons Thickness: Sides 3/4 " Back 1/16 " Top 23/32 " Bottom 3/4 "

Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 234 # Front plate at bottom: Material Steel Tensile strength 26/30 tons

Thickness 1 5/16 " Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 7/8 "

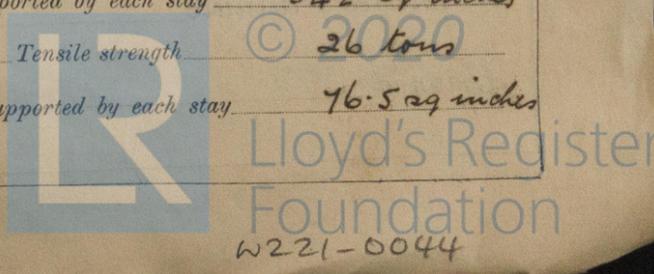
Are stays at wide water space (19" dia + 11 5/8" x 8 3/4") Are stays fitted with nuts or riveted over nuts

Working Pressure 232 # Main stays: Material Steel Tensile strength 28 tons

At body of stay, or Over threads 3 1/8 " No. of threads per inch 8 Area supported by each stay 342 sq inches

Working pressure by Rules 215 # Screw stays: Material Steel Tensile strength 26 tons

At turned off part, or Over threads 1 3/4 " No. of threads per inch 10 Area supported by each stay 76.5 sq inches



Working pressure by Rules 237#0 Are the stays drilled at the outer ends no Margin stays: Diameter 1 7/8"  
 No. of threads per inch 10 Area supported by each stay 99.5 sq in Working pressure by Rules 214#0  
 Tubes: Material Iron External diameter 3 1/2" Thickness 5/16" No. of threads per inch 9  
 Pitch of tubes 4 3/4" x 4 3/4" Working pressure by Rules 215#0 Manhole compensation: Size of opening in  
 shell plate 16x12" Section of compensating ring see below No. of rivets and diameter of rivet holes 122 @ 1 1/2"  
 Outer row rivet pitch at ends 10" Depth of flange if manhole flanged 2 1/2" Description of longitudinal joint SR lap  
 Tensile strength 26/30 tons Thickness of shell 3/4" Percentage of strength of joint 54.3  
 Diameter of rivet holes 1 1/32" Pitch of rivets 2 1/4" Thickness of crown 1/8" No. and diameter  
 Internal diameter 2'9" Working pressure by Rules 230#0 Working pressure by Rules  
 stays 2 @ 2 1/4" Inner radius of crown ✓ Diameter of rivet holes and pitch  
 How connected to shell Riveted Size of doubling plate under dome 1 21/64" x 4'9 1/2" dia  
 of rivets in outer row in dome connection to shell 1 1/32" 16 Rivets @ 4'5 1/4" pitch circle (app. pitch 10")

**Type of Superheater**  
 Number of elements \_\_\_\_\_ Material of tubes \_\_\_\_\_ Internal diameter and thickness of tubes \_\_\_\_\_  
 Material of headers \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_ Can the superheater be shut off a  
 the boiler be worked separately \_\_\_\_\_ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler  
 Area of each safety valve \_\_\_\_\_ Are the safety valves fitted with casing gear \_\_\_\_\_ Working pressure as  
 Rules \_\_\_\_\_ Pressure to which the safety valves are adjusted \_\_\_\_\_ Hydraulic test pressu  
 tubes \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Are drain cocks or valves fit  
 to free the superheater from water where necessary \_\_\_\_\_  
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with \_\_\_\_\_

The foregoing is a correct description,  
 For CHARLES D. HOLMES & CO., LTD. Manufacture

Dates of Survey See attached report Are the approved plans of boiler and superheater forwarded herewith  
 while building on board (If not state date of approval.)  
 Total No. of visits ✓

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. \_\_\_\_\_

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built  
under special survey and in accordance with the approved  
plan, the materials and workmanship being sound and  
good. It has been satisfactorily fitted on board, tried  
under steam and its safety valves adjusted as stated.

changed on engine report  
sent herewith

Survey Fee £ \_\_\_\_\_ When applied for, ✓ 19  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received, ✓ 19

B. Moffatt  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 18 NOV 1930  
 Assigned See Mr J.E. Rpt

