

REPORT ON BOILERS.

No. 44 377

13 JAN 1934

Received at London Office

Date of writing Report

19

When handed in at Local Office

12 JAN 1934

Port of

HULL

No. in Survey held at

Hull

Date, First Survey 3rd Nov. 1933

Last Survey 10th Jan. 1934

1934

on the Steam Trawler "LADY ADELAIDE"

(Number of Visits)

Gross Tons
Net

Master

Built at

Bewley

By whom built

Brook, Dalton & Fennell Ltd

Yard No. 586

When built 1934

Engines made at

Hull

By whom made

Charles S.

Engine No. 1451

When made 1934

Boilers made at

Hull

By whom made

Holmes & Co Ltd

Boiler No. 1451

When made 1934

Nominal Horse Power 102

Owners

John & Sons Limited Traders

Port belonging to

Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appley Iron & Steel Co Ltd (Letter for Record S)

Total Heating Surface of Boilers 1866 sq. ft Is forced draught fitted ho Coal or Oil fired Coal

No. and Description of Boilers one single ended Working Pressure 200 lbs.

Tested by hydraulic pressure to 350 lbs. Date of test 12.12.33 No. of Certificate 3878 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 Two spring loaded

Area of each set of valves per boiler per Rule 10.85 sq. ft as fitted 11.86 Pressure to which they are adjusted 200 lbs. 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 8" 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 141" Length 128" Shell plates: Material Steel Tensile strength 29/33 Tons

Thickness 1 1/4" Are the shell plates welded or flanged ✓ Description of riveting: circ. seams end 8R inter. ✓

Long. seams T.R. 5/8" Diameter of rivet holes in circ. seams 15/16" Pitch of rivets 3 3/4" 9 1/4"

Percentage of strength of circ. end seams plate 64.8 rivets 45.6 Percentage of strength of circ. intermediate seam plate 85.45 rivets ✓

Percentage of strength of longitudinal joint plate 86.8 rivets 88.8 Working pressure of shell by Rules 201 lbs.

Thickness of butt straps outer 3 1/2" inner 1 3/2" No. and Description of Furnaces in each Boiler Three plain

Material Steel Tensile strength 26/30 Tons Smallest outside diameter 42"

Length of plain part top 80.5" bottom 41" Thickness of plates crowns 13/16" bottom ✓ Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 201 lbs.

End plates in steam space: Material Steel Tensile strength 26/30 Tons Thickness 1 7/8" Pitch of stays 19" x 14 1/2"

How are stays secured double nuts & washers Working pressure by Rules 203 lbs.

Tube plates: Material front Steel back " Tensile strength 26/30 Tons Thickness 15/16" 7/8"

Mean pitch of stay tubes in nests 10.7" Pitch across wide water spaces 14" Working pressure front 209 lbs. back 205

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

at centre 10" x 13 1/4" Length as per Rule 36 1/4" Distance apart 9 1/2" No. and pitch of stays

in each 3 @ 8 3/4" Working pressure by Rules 209 lbs Combustion chamber plates: Material Steel

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

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

Working pressure by Rules 214 lbs Front plate at bottom: Material Steel Tensile strength 26/30 Tons

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26/30 Tons Thickness 27/32"

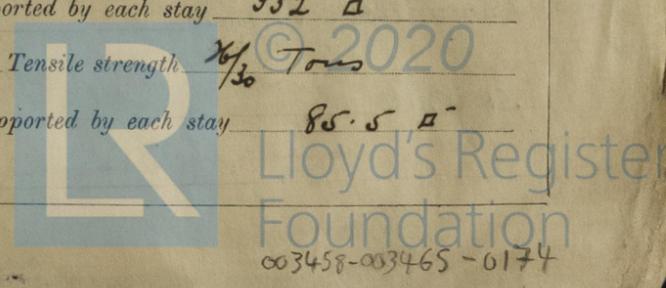
Pitch of stays at wide water space 14" x 8 7/16" Are stays fitted with nuts or riveted over nuts

Working Pressure 208 lbs. Main stays: Material Steel Tensile strength 28/32 Tons

Diameter At body of stay, 3 1/4" or Over threads, 3 1/4" No. of threads per inch 8 Area supported by each stay 332 sq. in.

Working pressure by Rules 241 lbs. Screw stays: Material Steel Tensile strength 26/30 Tons

Diameter At turned off part, 1 3/4" or Over threads, 1 3/4" No. of threads per inch 10 Area supported by each stay 85.5 sq. in.



Working pressure by Rules 213 Lbs. Are the stays drilled at the outer ends Yes Margin stays: Diameter ^{At turned off part,} 1 7/8" - 2"
 No. of threads per inch 10 Area supported by each stay 97.5 sq Working pressure by Rules 213 Lbs.
 Tubes: Material Iron External diameter ^{Plain} 3 1/2" Thickness ^{Stay} 5/16" No. of threads per inch 9
 Pitch of tubes 4 3/4" + 4 3/4" Working pressure by Rules 215 Lbs. Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 4'-9 1/2" dia x 1 1/2" No. of rivets and diameter of rivet holes 16 @ 1 9/16"
 Outer row rivet pitch at ends 10.4" Depth of flange if manhole flanged Yes Steam Dome: Material Steel
 Tensile strength 36 1/30 Tons Thickness of shell 3/4" Description of longitudinal joint S.L. Lap.
 Diameter of rivet holes 1 1/32" Pitch of rivets 2 1/4" Percentage of strength of joint ^{Plate} 54.0
 Internal diameter 33" Working pressure by Rules 215 Lbs. Thickness of crown 7/8" No. and diameter of stays 2 @ 2 1/4" Inner radius of crown Yes Working pressure by Rules 215 Lbs.
 How connected to shell Riveted Size of doubling plate under dome 4'-9 1/2" x 1 1/2" Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 1 5/16" @ 10.4"

Type of Superheater _____ Manufacturers of ^{Tubes} _____
 Number of elements _____ Material of tubes _____ Internal diameter and thickness of tubes _____
 Material of headers _____ Tensile strength _____ Thickness _____ Can the superheater be shut off and 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 easing gear _____ Working pressure as per Rules _____
 Pressure to which the safety valves are adjusted _____ Hydraulic test pressure: tubes _____ castings _____ and after assembly in place _____ Are drain cocks or valves fitted 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,
 Manufacturer.

Dates of Survey ^{During progress of work in shops - -} _____ Are the approved plans of boiler and superheater forwarded herewith Yes.
 while building ^{During erection on board vessel - - -} See machinery Rpt. Total No. of visits _____

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Lady Lilian 43635.

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

Charged on engine report
 Survey Fee £ : _____ When applied for, 19
 Travelling Expenses (if any) £ : _____ When received, 19

John Mackenzie
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____

Assigned See Mchz J. S.

