

REPORT ON BOILERS.

No. 40373

Received at London Office 22 NOV 1929

Date of writing Report 20: 11. 1929 When handed in at Local Office 20 Nov 1929 Port of HULL

No. in Survey held at Hull Date, First Survey 18 April Last Survey 12 Nov 1929
1618 on the Steam Trawler 'LORD TRENT' (Number of Visits 19) Gross 245.88 Net 121.66

Master Built at Selby By whom built Cochrane & Sons Ltd Yard No. 1062 When built 1929
Engines made at Hull By whom made Amos & Smith Ltd Engine No. 587 When made 1929
Boilers made at Hull By whom made do Boiler No. 587 When made 1929
Nominal Horse Power 96 Owners Dickering & Holdans Steam Trawling Co Ltd. Port belonging to Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Iron Co. Ltd. (Letter for Record (S))
Total Heating Surface of Boilers 1698 Sq. feet Is forced draught fitted No Coal or Oil fired Coal
No. and Description of Boilers One single ended, return tube Working Pressure 200 lbs

Tested by hydraulic pressure to 350 lbs Date of test 24.7.29 No. of Certificate 3726 Can each boiler be worked separately -
Area of Firegrate in each Boiler 49.2 sq. No. and Description of safety valves to each boiler 2 Spring loaded
Area of each set of valves per boiler per Rule 9.8 sq. as fitted 9.8 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 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'-0" Length 10'-8" Shell plates: Material Steel Tensile strength 29/33 Tons
Thickness 1 1/32" Are the shell plates welded or flanged - Description of riveting: circ. seams end B.R. inter. -
Pitch of rivets 8 3/4" Circ. seams T.R. 5/8" Diameter of rivet holes in circ. seams 1 1/8" long. seams 1 1/8" Pitch of rivets 8 3/4"
Percentage of strength of circ. end seams plate 65.8 rivets 51.2 Percentage of strength of circ. intermediate seam plate 85.03 rivets 70.8
Percentage of strength of longitudinal joint plate 85.03 rivets 70.8 combined 88.8 Working pressure of shell by Rules 200 lbs

Thickness of butt straps inter 1 1/2" inner 1 1/2" No. and Description of Furnaces in each Boiler Three plain
Material Steel Tensile strength 26/30 Tons Smallest outside diameter 41"
Length of plain part top 76" bottom 69" Thickness of plates crown 13/16" bottom 13/16" Description of longitudinal joint welded
Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 219 lbs.

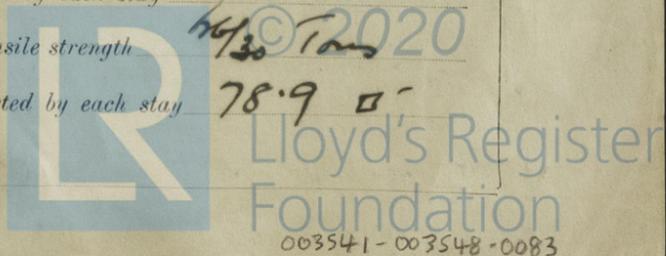
Head plates in steam space: Material Steel Tensile strength 26/30 Tons Thickness 13/16" Pitch of stays 18"
How are stays secured Double nuts & washers Working pressure by Rules 220 lbs.
Side plates: Material front Steel back - Tensile strength 26/30 Tons Thickness 15/16" front 7/8" back 7/8"

Span pitch of stay tubes in nests 10.97" Pitch across wide water spaces 13 3/4" Working pressure front 211 lbs back 230 -
Orders to combustion chamber tops: Material Steel Tensile strength 26/32 Tons Depth and thickness of girder
centre 10 1/2" x 13 1/4" Length as per Rule 36 3/16" Distance apart 9" No. and pitch of stays
each 3 @ 8 3/4" Working pressure by Rules 210 lbs. Combustion chamber plates: Material Steel

Tensile strength 26/30 Tons Thickness: Sides 3/4" Back 23/32" Top 3/4" + 23/32" Bottom 3/4"
Pitch of stays to ditto: Sides 9" x 8 3/4" Back 9" x 8 3/4" Top 9" x 8 3/4" Are stays fitted with nuts or riveted over nuts
Working pressure by Rules 230 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 29/32"

Pitch of stays at wide water space 14" x 8 3/4" Are stays fitted with nuts or riveted over nuts
Working Pressure 228 lbs. Main stays: Material Steel Tensile strength 29/32 Tons
Diameter At body of stay, or Over threads 3/4" No. of threads per inch 6 Area supported by each stay 324 sq. in.
Working pressure by Rules 240 lbs. Screw stays: Material Steel Tensile strength 26/30 Tons

Diameter At turned off part, or Over threads 1 7/8" + 1 3/4" No. of threads per inch 9 Area supported by each stay 78.9 sq. in.



Working pressure by Rules 230 Lb Are the stays drilled at the outer ends Lo Margin stays: Diameter ^{At turned off part,} 1 7/8" _{or} 1 7/8" ^{Over threads}

No. of threads per inch 9 Area supported by each stay 97.75 sq" Working pressure by Rules 215 Lb

Tubes: Material Iron External diameter ^{Plain} 3 1/2" Thickness ^{Sub.} 5/16" + 3/8" No. of threads per inch 9

Pitch of tubes 4 7/8" Working pressure by Rules 215 Lb Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 34" x 27" + 1 3/4" No. of rivets and diameter of rivet holes 32 @ 1 1/4"

Outer row rivet pitch at ends 8 3/8" Depth of flange if manhole flanged Steam Dome: Material

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint ^{Plate} _{Rivets}

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays

How connected to shell Inner radius of crown Working pressure by Rules

of rivets in outer row in dome connection to shell Size of doubling plate under dome Diameter of rivet holes and pitch

Type of Superheater Manufacturers of ^{Tubes} _{Steel castings}

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

Area of each safety valve Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Rules Pressure to which the safety valves are adjusted Are the safety valves fitted with easing gear Working pressure as per tubes ^{castings} and after assembly in place Hydraulic test pressure: 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
For AMOS & SMITH LTD.

The foregoing is a correct description,

 Manufacturers

Dates of Survey ^{During progress of work in shops - - -} See attached report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

^{while building} _{board vessel - - -} on Machy. Total No. of visits 1

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey & in accordance with the approved plan & the materials & workmanship are sound & good. It has been satisfactorily fitted on board, tried under steam & its safety valves adjusted under steam as above

Charge on engine report

Survey Fee	£	:	When applied for,	192
Travelling Expenses (if any)	£	:	When received,	192

John H. Mackintosh
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 29 NOV 1929

Assigned See Rpt. attached

