

REPORT ON BOILERS.

No. 44160

26 OCT 1933

Received at London Office

Date of writing Report 19 25 OCT 1933 When handed in at Local Office 19 25 OCT 1933 Port of HULL

No. in Survey held at Hull Date, First Survey 13.6.33 Last Survey 21.10.33

on the Steam Trawler "LORD PLENDER" (Number of Visits ✓) Tons { Gross 396.31 Net 153.08

Master Selby Built at Selby By whom built Cochrane Bros & Co Yard No. 1117 When built 1933

Engines made at Hull By whom made Charles D. Engine No. 1440 When made 1933

Boilers made at Hull By whom made Holmes & Co Ld Boiler No. 1440 When made 1933

Indicated Horse Power 101 Owners Pickering & Hearn's Steam Trawling Co Ld Port belonging to Hull

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appaly Lim Co Ld (Letter for Record S)

Total Heating Surface of Boilers 1804 Sq. ft. Is forced draught fitted ho Coal or Oil fired Coal

Number and Description of Boilers One single ended Working Pressure 210 Lbs.

Tested by hydraulic pressure to 365 Lbs Date of test 5.8.33 No. of Certificate 3864 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 50 sq ft No. and Description of safety valves to each boiler Two spring loaded

Area of each set of valves per boiler { per Rule 10.2 sq ft as fitted 11.88 sq ft Pressure to which they are adjusted 210 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 10 1/2" 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 1/4" 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 BR inter. ✓

No. of seams T.R. 5.13.8 Diameter of rivet holes in { circ. seams 1 3/8" long. seams ✓ Pitch of rivets { 9/4"

Percentage of strength of circ. end seams { plate 63.2 rivets 46.7 Percentage of strength of circ. intermediate seam { plate 85.13 rivets 86.8

Percentage of strength of longitudinal joint { plate 85.13 rivets 86.8 combined 87.6 Working pressure of shell by Rules 212 Lbs.

Thickness of butt straps { outer 1 1/32" inner 1 5/32" No. and Description of Furnaces in each Boiler Three plain

Material Steel Tensile strength 26/30 Tons Smallest outside diameter 41.66"

Length of plain part { top 78.875" bottom ✓ Thickness of plates { crown 5 3/16" bottom 5/16" Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 212 Lbs.

Stays in steam space: Material Steel Tensile strength 26/30 Tons Thickness 1 3/16" Pitch of stays 19 1/4" x 18 1/2"

How are stays secured Double nuts & washers Working pressure by Rules 212 Lbs.

End plates: Material { front Steel back - Tensile strength { 26/30 Tons Thickness { 7/8"

Span pitch of stay tubes in nests 11.2" Pitch across wide water spaces 15" Working pressure { front 215 Lbs. back 224 "

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

Centre 1 1/4" x 10" Length as per Rule 36.9" Distance apart 9 1/2" No. and pitch of stays

each 3 @ 8" Working pressure by Rules 212 Lbs. Combustion chamber plates: Material Steel

Tensile strength 26/30 Tons Thickness: Sides 3/4" Back 2 3/32" Top 2 3/32" Bottom 3/4"

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

Working pressure by Rules 224 Lbs. Front plate at bottom: Material Steel Tensile strength 26/30 Tons

Thickness 1" Lower back plate: Material Steel Tensile strength 26/30 Tons Thickness 2 9/32"

Pitch of stays at wide water space 15" x 8 1/2" Are stays fitted with nuts or riveted over nuts

Working Pressure 226 Lbs Main stays: Material Steel Tensile strength 26/32 Tons

Grip diameter { At body of stay, ✓ or 3/4" No. of threads per inch 8 Area supported by each stay 360 sq in

Working pressure by Rules 220 Lbs. Screw stays: Material Steel Tensile strength 26/30 Tons

Grip diameter { At turned off part, ✓ or 1 1/4" No. of threads per inch 10 Area supported by each stay 81 sq in

Working pressure by Rules 223 Lbs Are the stays drilled at the outer ends Yes Margin stays: Diameter 1 7/8" + 2" ^{At turned off part,} _{or} ^{Over threads}

No. of threads per inch 10 Area supported by each stay 98 sq" Working pressure by Rules 217 Lbs.

Tubes: Material Iron External diameter 3 1/2" Thickness 3/16" + 3/8" No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 7/8" Working pressure by Rules 215 Lbs. Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 24" x 27" + 1 1/32" No. of rivets and diameter of rivet holes 32 @ 1 3/8"

Outer row rivet pitch at ends 9 1/4" Depth of flange if manhole flanged Yes Steam Dome: Material Iron

Tensile strength 45,000 Thickness of shell 1/2" Description of longitudinal joint Butt

Diameter of rivet holes 1 1/8" Pitch of rivets 1 1/2" Percentage of strength of joint 100%

Internal diameter 28" Working pressure by Rules 215 Lbs. Thickness of crown 1/2" No. and diameter of stays 10 @ 1 1/2"

How connected to shell Direct Inner radius of crown 12" Working pressure by Rules 215 Lbs.

How connected to shell Direct Size of doubling plate under dome 10" Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 10"

Type of Superheater Water tube Manufacturers of W. G. & Co.

Number of elements 1 Material of tubes Iron Internal diameter and thickness of tubes 2 1/2" x 1/8"

Material of headers Iron Tensile strength 45,000 Thickness 1/2" Can the superheater be shut off and the boiler be worked separately Yes

Area of each safety valve 1 1/2" Are the safety valves fitted with easing gear Yes Working pressure as per Rules 215 Lbs.

Pressure to which the safety valves are adjusted 215 Lbs. Hydraulic test pressure: tubes 260 Lbs. and after assembly in place 260 Lbs. Are drain cocks or valves fitted to free the superheater from water where necessary Yes

The foregoing is a correct description,
FOR CHARLES B. 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 up (If not state date of approval.)
 Total No. of visits 1

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Rockflow, No 44106.

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 as above.

The approved plan & steel invoices sent with above report on the cited vessel, St. Rockflow.

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

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

Committee's Minute FRI. 27 OCT 1933
 Assigned See attached rpt

Rpt No. 44106
 No. in Reg. 101
 Date of Reg. 27 Oct 1933
 Built at St. Rockflow
 Owner St. Rockflow
 Electr. St. Rockflow
 Is the St. Rockflow
 System St. Rockflow
 Pressure St. Rockflow
 Direct St. Rockflow
 If altern St. Rockflow
 Has the St. Rockflow
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 Earth Te St. Rockflow
 Switches St. Rockflow
 Joint Bo St. Rockflow