

Rpt. 5a.

REPORT ON BOILERS.

No. H-1576

-7 JAN 1931

Received at London Office

HULL

Date of writing Report 5-1-31 When handed in at Local Office 5 Jan 1931 Port of HULL

No. in Reg. Book. Survey held at HULL Date, First Survey 7 August Last Survey 29 Dec. 1930

61610 on the STEAM TRAWLER "LORD BEAVERBROOK" (Number of Visits 26) Gross Tons 362.10 Net Tons 140.53

Master Built at Selly By whom built Bochrane & Sons Yard No. 1099 When built 1930

Engines made at Hull By whom made Amos & Smith Ltd. Engine No. 621 When made 1930

Boilers made at Hull By whom made Amos & Smith Ltd. Boiler No. 621 When made 1930

Nominal Horse Power 96 Owners Pickering & Haldane's Steam Trawling Co. Ltd. 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 ft Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers one single ended return tube Working Pressure 200 #

Tested by hydraulic pressure to 350 # Date of test 25.11.30 No. of Certificate 3815 Can each boiler be worked separately no

Area of Firegrate in each Boiler 49.2 sq ft No. and Description of safety valves to each boiler 2 Spring loaded

Area of each set of valves per boiler 9.8 sq in Pressure to which they are adjusted 200 # Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 7 Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating no Is the bottom of the boiler insulated no

Largest internal dia. of boilers 14' 0" Length 10' 8" Shell plates: Material Steel Tensile strength 29-33 tons

Thickness 1 3/32" Are the shell plates welded or flanged no Description of riveting: circ. seams end 2K

long. seams SK. 2/35 Diameter of rivet holes in circ. seams 19/32 Pitch of rivets 3 3/4"

Percentage of strength of circ. end seams plate 65.8 rivets 42.6 Percentage of strength of circ. intermediate seam plate 85.13 rivets 90.8

Percentage of strength of longitudinal joint plate 85.13 rivets 90.8 combined 88.8 Working pressure of shell by Rules 201 #

Thickness of butt straps outer 1" inner 1 1/8" 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 16/16" Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom no Working pressure of furnace by Rules 219 #

End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 3/16" Pitch of stays 18"

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

Tube plates: Material front Steel back Steel Tensile strength 26-30 tons Thickness 15/16"

Mean pitch of stay tubes in nests 10.97" Pitch across wide water spaces 13 3/4" Working pressure front 211 # back 230 #

Girders to combustion chamber tops: Material Steel Tensile strength 29-33 tons Depth and thickness of girder at centre 10 1/2" x 1 3/4" Length as per Rule 36 3/16" Distance apart 9" No. and pitch of stays in each 3 @ 8 3/4" Working pressure by Rules 210 # Combustion chamber plates: Material Steel

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

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

Working pressure by Rules 230 # 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 # Main stays: Material Steel Tensile strength 28-32 tons

Diameter At body of stay, or Over threads 3 1/4" No. of threads per inch 6 Area supported by each stay 324 sq inches

Working pressure by Rules 240 # Screw stays: Material Steel Tensile strength 26-30 tons

Diameter At turned off part, or Over threads 1 1/8" + 1 1/4" No. of threads per inch 9 Area supported by each stay 87 sq inches



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Working pressure by Rules **230 #0** Are the stays drilled at the outer ends **no** Margin stays: Diameter ^{At turned off part,} **1 7/8"** _{or Over threads}

No. of threads per inch **9** Area supported by each stay **94.75 sq"** Working pressure by Rules **218 #0"**

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

Pitch of tubes **4 7/8"** Working pressure by Rules **215 #0"** Manhole compensation: Size of opening **1 9/32"**

shell plate **16" x 12"** Section of compensating ring **34" x 24" x 1 1/2"** No. of rivets and diameter of rivet holes **32 @ 1 9/32"**

Outer row rivet pitch at ends **8 9/16"** Depth of flange if manhole flanged **1 1/2"** Steam Dome: Material **Iron**

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 _____

Inner radius of crown _____ Working pressure by Rules _____

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

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 _____

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 _____

For AMOS & SMITH LTD.

The foregoing is a correct description,

J. P. Harder Manufacturer.

Dates of Survey ^{During progress of work in shops - -} _____ _{while building} ^{During erection on board vessel - - -} _____

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____

Total No. of visits _____

Is this Boiler a duplicate of a previous case **yes** If so, state Vessel's name and Report No. **"Beachflower"**

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, examined under steam and the safety valves adjusted to pressure state.**

The approved plan & invoices were forwarded with report on sister vessel "Beachflower"

Charged 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. 13 JAN 1931**

Assigned **See other report**



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