

REPORT ON BOILERS.

Received at London Office 20 DEC 1930

Date of writing Report 18:12:30 When landed in at Local Office 18 Dec 30 Port of HULL

No. in Reg. Book. Survey held at HULL Date, First Survey 26 Aug Last Survey 15 Dec 1930

60612 on the STEAM TRAWLER "BEACHFLOWER." (Number of Visits 15) Tons { Gross 374.67 Net 145.15

Master Built at Selby By whom built Cochrane + Sons Yard No. 1098 When built 1930
Engines made at Hull By whom made Amos + Smith Ltd. Engine No. 620 When made 1930
Boilers made at Hull By whom made Amos + Smith Ltd. Boiler No. 620 When made 1930
Nominal Horse Power 96 Owners Yorkshire Steam Fishing 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 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 11-11-30 No. of Certificate 3812 Can each boiler be worked separately

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 { per Rule 9.80" as fitted 9.80" 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

Smallest distance between boilers or uptakes and bunkers or woodwork 7" 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 3/32" Are the shell plates welded or flanged Description of riveting: circ. seams { end DR inter. 3 1/4" long. seams 2R. D.S.S. Diameter of rivet holes in { circ. seams 19/32" long. seams Pitch of rivets { 8 9/16"

Percentage of strength of circ. end seams { plate 65.8 rivets 42.6 Percentage of strength of circ. intermediate seam { plate 85.03 rivets

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

Thickness of butt straps { outer 1 1/8" inner No. and Description of Furnaces in each Boiler Three plain

Material Steel Tensile strength 26-30 tons Smallest outside diameter 4"

Length of plain part { top 76" bottom 69" Thickness of plates { crown 13" bottom 16" Description of longitudinal joint Welded

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

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

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

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

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 5/4 + 23/32" 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"

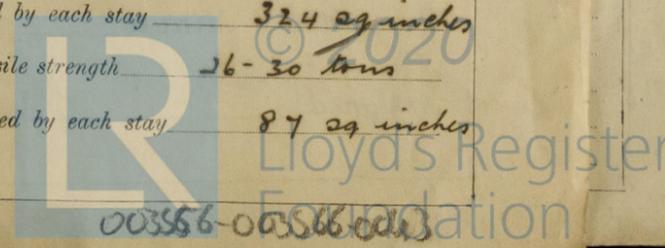
Pitch of stays at wide water space 14" x 8 3/4" Are stays fitted with nuts or riveted over nuts

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 7/8" + 1 3/4" No. of threads per inch 9 Area supported by each stay 87 sq inches



Working pressure by Rules 230 # Are the stays drilled at the outer ends no Margin stays: Diameter 1 7/8"
 No. of threads per inch 9 Area supported by each stay 97.75 # Working pressure by Rules 218 #
 Tubes: Material Iron External diameter 3 1/2" Thickness 9/16" + 3/8" No. of threads per inch 9
 Pitch of tubes 4 1/8" Working pressure by Rules 215 # Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 34" x 24" x 1 3/2" No. of rivets and diameter of rivet holes 32 @ 1 3/2"
 Outer row rivet pitch at ends 8 9/16" Depth of flange if manhole flanged _____
 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 _____ 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,

John Henderson

SECRETARY Manufacturer.

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 During erection on board vessel - - - on Machy. Total No. of visits ✓

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

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 the pressure stated

The approved plan & invoices forwarded herewith, refers also to the sister-vessel "Lord Beaverbrook", to be reported shortly.

Charged on engine report sent forward.

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

G. Moffatt

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 30 DEC 1930

Assigned See other Paul J.C. 41464

