

REPORT ON BOILERS.

No. 41579.

Received at London Office

29 JAN 1931

Date of writing Report

28.1.31

When handed in at Local Office

28 Jan 31

Port of

HULL

No. in Reg. Boak. Survey held at

HULL

Date, First Survey

16 Aug/30

Last Survey

23 Dec. 31

62313 on the STEAM TRAWLER "SOLON"

(Number of Visits 31)

Tons { Gross 347.81 Net 147.91

Master _____ Built at Beverley By whom built Book, Welton & Gemmell Ltd. Card No. 562 When built 1931
 Engines made at Hull By whom made Amos & Smith Ltd. Engine No. 625 When made 1931
 Boilers made at Hull By whom made Amos & Smith Ltd. Boiler No. 625 When made 1931
 Nominal Horse Power 98 Owners The Standard Steam Fishing Co Ltd Port belonging to Grimsey

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Iron Co. Ltd. (Letter for Record S.)
 Total Heating Surface of Boilers 1753 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 #0
 Tested by hydraulic pressure to 350 #0 Date of test 24.12.30 No. of Certificate 3820 Can each boiler be worked separately _____
 Area of Firegrate in each Boiler 50 sq ft No. and Description of safety valves to each boiler 2 Spring loaded
 Area of each set of valves per boiler { per Rule 10.9 sq in as fitted 11.8 Pressure to which they are adjusted 200 #0 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' 3" Length 10' 7 1/16" 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 SR inter. _____
 long. seams J.R. SRS. Diameter of rivet holes in { circ. seams 1 9/32" Pitch of rivets { _____ inter. 3 1/16" long. seams _____
 Percentage of strength of circ. end seams { plate 67.4 rivets 43.0 Percentage of strength of circ. intermediate seam { plate _____ rivets _____
 Percentage of strength of longitudinal joint { plate 85.55 rivets 87.8 Working pressure of shell by Rules 200 #0 combined _____
 Thickness of butt straps { outer 15/16" inner 1 1/16" No. and Description of Furnaces in each Boiler Three Plain
 Material Steel Tensile strength 26-30 tons Smallest outside diameter 4 2/8"
 Length of plain part { top 49" bottom 46" Thickness of plates { crown 13/16" bottom 1/16" Description of longitudinal joint Welded
 Dimensions of stiffening rings on furnace or c.c. bottom _____ Working pressure of furnace by Rules 204 #0
 End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 3/16" Pitch of stays 20 x 18"
 How are stays secured Double nuts & washers Working pressure by Rules 218 #0
 Tube plates: Material { front Steel back _____ Tensile strength { 26-30 tons Thickness { 15/16" _____
 Mean pitch of stay tubes in nests 11.5" Pitch across wide water spaces 14" Working pressure { front 218 #0 back 269 #0
 Girders to combustion chamber tops: Material Steel Tensile strength 29-33 tons Depth and thickness of girder at centre 9" x 1 1/4" Length as per Rule 35" Distance apart 9" No. and pitch of stays in each 3 @ 8 1/4" Working pressure by Rules 218 #0 Combustion chamber plates: Material Steel Tensile strength 26-30 tons Thickness: Sides 3/4" Back 1/16" Top 1/16" Bottom 3/4"
 Pitch of stays to ditto: Sides 9 1/2" x 8 1/2" Back 9" x 9" Top 9" x 8 1/4" Are stays fitted with nuts or riveted over Nuts
 Working pressure by Rules 207 #0 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 1/8"
 Pitch of stays at wide water space 14" x 9" Are stays fitted with nuts or riveted over Nuts
 Working Pressure 218 #0 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 360 sq inches
 Working pressure by Rules 222 #0 Screw stays: Material Steel Tensile strength 26-30 tons
 Diameter { At turned off part, or Over threads 3/4" + 1 1/8" No. of threads per inch 9 Area supported by each stay 81 sq inches

Working pressure by Rules 222 #0 Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part} 2" x 1 7/8"
 No. of threads per inch 9 Area supported by each stay 100.5 sq inches Working pressure by Rules 203 #0
 Tubes: Material Iron External diameter ^{Plain} 3 1/2" Thickness ^{8 L.S.C.} 5/16" x 3/8" No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 5/8" Working pressure by Rules 215 #0 Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 56 5/8" x 1" No. of rivets and diameter of rivet holes 16 @ 1 1/4"
 Outer row rivet pitch at ends 10 1/4" Depth of flange if manhole flanged no Steam Dome: Material Steel
 Tensile strength 26-30 tons Thickness of shell 3/4" Description of longitudinal joint SR. lap.
 Diameter of rivet holes 1 1/2" Pitch of rivets 2 1/4" Percentage of strength of joint ^{Plate} 54.0
 Internal diameter 36" Working pressure by Rules 210 #0 Thickness of crown 1" No. and diameter of stays 2 @ 2 1/2" Inner radius of crown - Working pressure by Rules -
 How connected to shell Riveted Size of doubling plate under dome 56 5/8" x 1" Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 1 9/16" @ 3.13"

Type of Superheater _____ Manufacturers of ^{Tubes} _____
 Number of elements _____ Material of tubes _____ ^{Steel castings} _____
 Material of headers _____ Tensile strength _____ Internal diameter and thickness of tubes _____
 Can the superheater be shut off and the boiler be worked separately _____ Thickness _____
 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,
[Signature] Manufacturer.
 MANAGER

Dates of Survey ^{During progress of work in shops - -} See attached report on Machy. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
^{while building} ^{During erection on board vessel - - -} Total No. of visits ✓

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

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 + good. It has been satisfactorily fitted on board, examined under steam, and its safety valves adjusted as stated.

The approved plan was forwarded previously, with the Report on the sister-vessel "Edwardian".

Charged on engine report sent herewith.

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

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 30 JAN 1931
 Assigned See other Rpt