

REPORT ON BOILERS.

No. 54464

Received at London Office 28 OCT 1947

Date of writing Report 19... When handed in at Local Office 23 OCT 1947... Port of HULL.

No. in Reg. Book. Survey held at Selby & Hull. Date, First Survey 11.12.46. Last Survey 8.10.1947.

(Number of Visits 35...)

65954 on the Steam Trawler "E L L I D I". Tons { Gross 642 Net 216

Master - Built at Selby By whom built Cochrane & Son Ltd. Yard No. 1325 When built 1947.

Engines made at Hull By whom made Amos & Smith Ltd. Engine No. 788 When made 1947.

Boilers made at -do- By whom made -do- Boiler No. 788 When made 1947.

Nominal Horse Power M.N. 249 Owners Government of Iceland (Skipautgerd Rikisins). Port belonging to Siglufjordur.

MULTITUBULAR BOILERS MAIN, ~~ALSO SEE COCHCRANE~~

Manufacturers of Steel Appleby Frodingham Steel Co. Ltd. (Letter for Record S)

Total Heating Surface of Boilers 2800 sq.ft. Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers One S.B. Working Pressure 225lbs

Tested by hydraulic pressure to 388 Date of test No. of Certificate Can each boiler be worked separately -

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler One D.S. 2.3/4" H.L. (Improved).

Area of each set of valves per boiler { per Rule 9 in² as fitted 11.8 in² Pressure to which they are adjusted 231 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 2'4" Is oil fuel carried in the double bottom under boilers none

Smallest distance between shell of boiler and tank top plating - Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 15'-9.1/16" Length 11'1" Shell plates: Material Siemens Martin Processed stl. Tensile strength 31/35.

Thickness 1.15/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end 2R inter -

long. seams 3R D.B. straps. Diameter of rivet holes in { circ. seams 1.15/32" long. seams 1 1/2" Pitch of rivets { 3.7/8" 9.9/16"

Percentage of strength of circ. end seams { plate 62% rivets 44.1% Percentage of strength of circ. intermediate seam { plate - rivets -

Percentage of strength of longitudinal joint { plate 84.31% rivets 86.9% combined 86.1% Working pressure of shell by Rules -

Thickness of butt straps { outer 1.5/32" inner 1.9/32" No. and Description of Furnaces in each Boiler Three Deighton Type Corrugation Furnace.

Material Steel Tensile strength 26/30 tons/in² Smallest outside diameter 3'11.1/32"

Length of plain part { top - bottom - Thickness of plates { crown 47/64" bottom 64" Description of longitudinal joint Welded.

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

End plates in steam space: Material Steel Tensile strength 26-30 tons/in² Thickness 1.1/4" Pitch of stays 1'8" x 1'6"

How are stays secured nuts and washers. Working pressure by Rules -

Tube plates: Material { front steel back -do- Tensile strength { 26-30 tons/in² -do- Thickness { 1" 7/8"

Mean pitch of stay tubes in nests 10.39" Pitch across wide water spaces 1'2 1/2" x 9" Working pressure { front - back -

Girders to combustion chamber tops: Material Steel Tensile strength 29-33 tons/in² Depth and thickness of girder at centre 9 1/2" 2 at 7/8" Length as per Rule 2'8 1/2" Distance apart 9.3/4" No. and pitch of stays in each 3 - 8" Working pressure by Rules -

Combustion chamber plates: Material Steel

Tensile strength 26-30 tons/in² Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 7/8"

Pitch of stays to ditto: Sides 9"x8 1/2" Back 8 1/2"x9 1/2" & 9.75"x7.75" Top 9 1/2"x8" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules - Front plate at bottom: Material Steel Tensile strength 26-30 tons/in²

Thickness 1" Lower back plate: Material Steel Tensile strength 26-30 tons/in² Thickness 29/32"

Pitch of stays at wide water space 14 1/2" x 9 1/4" Are stays fitted with nuts or riveted over nuts

Working pressure - Main stays: Material Steel Tensile strength 28-32 tons/in²

Diameter { At body of stay 3.3/8" No. of threads per inch 6 Area supported by each stay 1'8" x 1'6"

Working pressure by Rules - Screw stays: Material Steel Tensile strength 26-30 tons/in²

Diameter { At turned off part 1.3/4" No. of threads per inch 9 Area supported by each stay 9 1/2" x 7 1/2"

Steam Trawler "ELLIDI".

Working pressure by Rules. - Are the stays drilled at the outer ends. No. Margin stays: Diameter { At turned off part. } 2", 2 1/8" }
 No. of threads per inch 9 Area supported by each stay 14 1/2" x 9 1/4" Working pressure by Rules. -
 Tubes: Material Seamless steel. External diameter { Plain 3.1/4" Stay 3.1/4" Thickness { 5/16", 3/8", 7/16" No. of threads per inch 9
 Pitch of tubes 4 1/8" x 4 1/8" Working pressure by Rules. - Manhole compensation: Size of opening 122-1.15/32"
 shell plate 16" x 12" Section of compensating ring 5-2 1/4" x 1 1/4" TK. No. of rivets and diameter of rivet holes 122-1.15/32"
 Outer row rivet pitch at ends 16" x 4' 9 1/4" Depth of flange if manhole flanged Steam dome 3 1/2" Steam Dome: Material Steel
 Tensile strength 26-30 tons/in² Thickness of shell 13/16" Description of longitudinal joint S.R. Lap.
 Diameter of rivet holes 1.3/32" Pitch of rivets 2 1/4" Percentage of strength of joint { Plate 51.3 Rivets 45.4
 Internal diameter 3' 9" Working pressure by Rules. - Thickness of crown 1" No. and diameter
 stays 2 1/2" Inner radius of crown Flat Working pressure by Rules. -
 How connected to shell D.R. Size of doubling plate under dome 5' 2 1/4" dia. x 1 1/4" TK. Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1.15/32" - 11.34"

Type of Superheater ME-LE-SCO.

Manufacturers of

Tubes. See Manchester Certificates
 Steel forgings. Nos. CG. 5636 & CG. 5454 (copy).
 Steel castings. -

Number of elements 55 Material of tubes Steel Internal diameter and thickness of tubes. -
 Material of headers Steel Tensile strength. - Thickness. - Can the superheater be shut off at
 the boiler be worked separately. 3-Yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler. Yes
 Area of each safety valve 3 - 14 in² Are the safety valves fitted with easing gear. Yes Working pressure as per
 Rules. - Pressure to which the safety valves are adjusted 230lbs/in² Hydraulic test pressure
 tubes 675lbs forgings and castings 675lbs and after assembly in place 675lbs Are drain cocks
 valves fitted to free the superheater from water where necessary. Yes
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with. Yes

The foregoing is a correct description,
W.C. Brown Manufacturer

Dates of Survey while building { During progress of work in shops. 1946 Dec. 11. 1947 Jan 6-27, Feb. 17. During erection on board vessel. see Machinery Report. Are the approved plans of boiler and superheater forwarded herewith. 10.11.4
 (If not state date of approval.)
 Total No. of visits 35.

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

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

The boiler has been constructed and installed in accordance with
 the approved plans, the Secretary's letters and the Rules.
 The workmanship & materials are good.
 A hydraulic test of 388lbs. was made and boiler subsequently tested
 under working conditions.
 On completion of all tests the boiler was examined and found satisfactory
 in every respect.
 The safety valves were adjusted and an accumulation test held.

Survey Fee ... see Machinery Report. When applied for. 19
 Travelling Expenses (if any) £ : : When received. 19

M. Chambers.

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

Su F.F. Muckly, rpt



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