

REPORT ON BOILERS.

No. 68030.

Received at London Office

E3 FEB 1944

Date of writing Report 27-1-44 When handed in at Local Office 31.1.44 Port of GLASSGOW

No. in Survey held at GLASSGOW Date, First Survey 15.1.43 Last Survey 11.1.1944

on the EMPIRE SHEILA A/MS 1149 (Number of Visits 13) Tons Gross 292 Net NIL

Built at Selly By whom built Cochran & Sons Ltd. Yard No. 1299 When built 1945

Engines made at Providence, Rhode Is. USA By whom made Franklin Machine & Foundry Co. Engine No. 1018 When made 1943 installed by Amos Smith N° 761 1945

Boilers made at GLASSGOW By whom made BARCLAY CURRIE & CO. LTD. Boiler No. 92/20 When made 1942 installed 1945

Nominal Horse Power Owners Ministry of War Transport. Port belonging to Hull managed by Overseas Transport Salvage Co. Ltd.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel COLVILLE'S

Total Heating Surface of Boilers 1786 sq ft Is forced draught fitted Yes (Letter for Record S Oil fired Coal or Oil fired Coal)

No. and Description of Boilers One Single-ended Working Pressure 220 lb

Tested by hydraulic pressure to 380 lb Date of test 15/9/43 No. of Certificate 21503 Can each boiler be worked separately

Area of Firegrate in each Boiler 45 sq ft No. and Description of safety valves to each boiler One 2" H.L. Double

Area of each set of valves per boiler {per Rule 4.75 sq ft as fitted 6.28 sq ft Pressure to which they are adjusted 226 lb Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler 6" 0" between boiler & bunkers

Smallest distance between boilers or uptakes and bunkers or woodwork 20" Is oil fuel carried in the double bottom under boilers NO.

Smallest distance between shell of boiler and tank top plating NONE Is the bottom of the boiler insulated YES

Largest internal dia. of boilers 13' 0" Length 11' 6" Shell plates: Material S Tensile strength 29/32 tons

Thickness 1 1/4" Are the shell plates welded or flanged No Description of riveting: circ. seams {end Double inter. 3.79"

long. seams D.B.S. Triple Diameter of rivet holes in {circ. seams 1 5/16" Pitch of rivets {long. seams 1 5/16" 9/125"

Percentage of strength of circ. end seams {plate 65.3 rivets 45.2 Percentage of strength of circ. intermediate seam {plate 85.6 rivets 87.8

Percentage of strength of longitudinal joint {plate 85.6 rivets 87.8 combined 89.7

Thickness of butt straps {outer 1" inner 1 1/8" No. and Description of Furnaces in each Boiler 3 Doughton

Material S Tensile strength 26/30 tons Smallest outside diameter 37 1/4"

Length of plain part {top Thickness of plates {crown 19/32" Description of longitudinal joint Welded bottom

Dimensions of stiffening rings on furnace or c.c. bottom

End plates in steam space: Material S Tensile strength 26/30 tons Thickness 1 1/32" Pitch of stays 19 x 16

How are stays secured D.N.

Tube plates: Material {front S Tensile strength {back 26/30 tons Thickness {1 5/16" 20/32"

Mean pitch of stay tubes in nests 9.75" Pitch across wide water spaces 14"

Girders to combustion chamber tops: Material S Tensile strength 28/32 tons Depth and thickness of girder at centre 2 @ 8 1/2" x 5/8" Length as per Rule 2' 7 1/32" Distance apart 6" 4 7" No. and pitch of stays in each 2 @ 10"

Combustion chamber plates: Material S

Tensile strength 26/30 tons Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 3/4"

Pitch of stays to ditto: Sides 7" x 10" Back 8" x 9 1/4" Top 7" x 10" Are stays fitted with nuts or riveted over Nuts

Front plate at bottom: Material S Tensile strength 26/30 tons

Thickness 1 5/16" Lower back plate: Material S Tensile strength 26/30 tons Thickness 27/32"

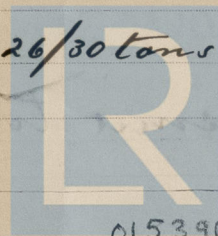
Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over Nuts

Main stays: Material S Tensile strength 28/32 tons

Diameter {At body of stay, or Over threads 2 7/8" No. of threads per inch 6

Screw stays: Material S Tensile strength 26/30 tons

Diameter {At turned off part, or Over threads 1 3/4" No. of threads per inch 9



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E. SHEILA

Are the stays drilled at the outer ends No

Margin stays: Diameter { At turned off part, or Over threads 1 3/4" x 1 7/8"

No. of threads per inch 9

Tubes: Material S External diameter { Plain 3" Stay 3" Thickness { 8 W 9 5/16" x 3/8" No. of threads per inch 9

Pitch of tubes 4 1/8" x 4 1/4"

Manhole compensation: Size of opening shell plate 16 1/2" x 20 1/2" Section of compensating ring 9.75" x 1 1/4" No. of rivets and diameter of rivet holes 40 @ 1 5/16"

Outer row rivet pitch at ends 9 1/8" Depth of flange if manhole flanged 3 7/8" Steam Dome: Material

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 Thickness of crown No. and diameter stays

Inner radius of crown

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 forgings 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

Pressure to which the safety valves are adjusted

tubes forgings and castings and after assembly in place

Hydraulic test pressure Are drain cocks of 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 Yes



The foregoing is a correct description,

For Barclay, Curle & Co., Ltd.

Alexander Macneill

Manufacture

Dates of Survey { During progress of work in shops - - - 1943 Jan 15 to 24 Mar 31 May 28 Jun 8 July 7 Aug 17-19. Sep 2 15-18 Oct 14 1944 Jan 11

while building { During erection on board vessel - - -

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 14-9-44

Total No. of visits 13

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. B.C. Bl. N° 12/3 Gls. Rpt. N° 67859

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the Rules and approved plans, the materials and workmanship are good.

The specification requirements have been carried out satisfactorily.

As this boiler has been unallocated, it has been placed in storage meantime at the North British Engine Works Whiteinch.

Above boiler installed in "Empire Sheila" by Amos Smith at Hull,

examined under working conditions, safety valves adjusted to 226 lb

(ring sizes P 11/32" S 3/8"), accumulation test held and found satisfactory

on completion of all tests.

W. S. Shields,

Hull.

Survey Fee ... £ 11 : 18 : When applied for 1 FEB 1944

Travelling Expenses (if any) £ 2 : 19 : 6 When received, 19

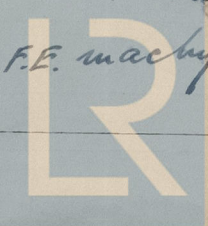
W. Russell

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 1 FEB 1944

Assigned Transmit to Wokingham

FRI. 30 NOV 1945



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