

REPORT ON BOILERS.

No. 59392

Received at London Office 15 JUN 1953
HULL. 15 JUN 1953

Date of writing Report 29.4.1953 When handed in at Local Office 1953 Port of HULL.

No. in Reg. Book Survey held at HULL Date, First Survey 10.12.52 Last Survey 6.3.53

(Number of Visits 7) Tons { Gross 635 Net 234

on the "ST. BARTHOLOMEW" ✓

Built at Beverley. By whom built Cook, Welton & Gemmell, Ltd. Yard No. 865 ✓ When built 1953

Engines made at Hull. By whom made C.D. Holmes & Co. Ltd. Engine No. 1842 ✓ When made 1953

Boilers made at -do- By whom made - do - Boiler No. 1842 ✓ When made 1953

MN as per Rule 206 Owners North Cape Fishing Co. Ltd. Port belonging to Grimsby.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Co. of Scotland Ltd.

Total Heating Surface of Boilers 2480 sq.ft. ✓ Of Superheaters 1100 sq.ft.

Total for Register Book 3580 ✓ Is forced draught fitted Yes ✓ Coal or Oil fired Oil ✓

No. and Description of Boilers One Multitubular. ✓ Working Pressure 220 lb/sq.in

Tested by hydraulic pressure to 380 lbs. Date of test 25.2.53. No. of Certificate 4390 ✓ Can each boiler be worked separately SINGLE.

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler One double spring 3½" ✓

Area of each set of valves per boiler { per Rule 19.2 ✓ as fitted Pressure to which they are adjusted 220 lbs. 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 Sufficient. ✓ Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating Open floors. ✓ Is the bottom of the boiler insulated No

Largest internal dia. of boilers 15'-6" ✓ Length 11'-0" ✓ Shell plates: Material O.H.Stl. ✓ Tensile strength 31/35 tons

If fusion welded, state name of welding Firm - Have all the requirements of the Rules for Class I vessels been complied with Thickness Are the shell plates welded or flanged flanged Description of riveting: circ. seams { end 3½" inter - D.R. Lap. ✓

long. seams TR.D.B.S. ✓ Diameter of rivet holes in { circ. seams 1.13/32" ✓ long. seams 1.7/16" ✓ Pitch of rivets { 9⅜" ✓

Percentage of strength of circ. end seams { plate 62.5 rivets 43.5 Percentage of strength of circ. intermediate seam { plate 84.66% rivets 85.72% combined 86.47%

Percentage of strength of longitudinal joint { plate 84.66% rivets 85.72% combined 86.47%

Thickness of butt straps { outer 1.3/32" ✓ inner 1.7/32" ✓ No. and Description of Furnaces in each Boiler Three Deighton type ✓

Material STEEL Tensile strength 26/30 tons. ✓ Smallest outside diameter XXXXX 3'-9½" ✓

Length of plain part { top 8" crown 11/16" bottom 8" Thickness of plates Btm. 11/16" Description of longitudinal joint WELDED.

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

End plates in steam space: Material O.H. Steel. ✓ Tensile strength 26/30 tons. Thickness 1.7/32" Pitch of stays 18" x 19".

How are stays secured Double Nuts and Washers. ✓

Tube plates: Material { front O.H. Steel ✓ back -do- Tensile strength { 26/30 tons - Thickness { 15/16" - 29/32" -

Mean pitch of stay tubes in nests 9¾" x 9½" ✓ Pitch across wide water spaces 14½" ✓

Girders to combustion chamber tops: Material O.H. Steel ✓ Tensile strength 29/33 ✓ Depth and thickness of girder at centre 9½" 2 @ 7/8" Length as per Rule 2'-9⅜" ✓ Distance apart 9½" ✓ No. and pitch of stays in each 3'-7¾" ✓

Combustion chamber plates: Material O.H. Steel ✓ Tensile strength 26/30 tons. ✓ Thickness: Sides 23/32" ✓ Back 23/32" ✓ Top 11/16" wings Bottom 7/8" ✓

Pitch of stays to ditto: Sides 8¼" x 9½" ✓ Back 9¾" x 8¼" ✓ Top 7¾" x 9¼" Are stays fitted with nuts or riveted over Nuts ✓

Front plate at bottom: Material O.H. Steel Tensile strength 26/30 tons ✓

Thickness 15/16" ✓ Lower back plate: Material O.H. Steel Tensile strength 26/30 ✓ Thickness 29/32" ✓

Pitch of stays at wide water space 14½" x 8¼" ✓ Are stays fitted with nuts or riveted over Nuts.

Main stays: Material O.H. Stl. Tensile strength 28/32 tons

Diameter { At body of stay 3½" ✓ No. of threads per inch 8 ✓

Screw stays: Material O.H. Stl. Tensile strength 26/30 tons

Diameter { At turned off part 1½" ✓ No. of threads per inch 10 ✓

Over threads 1½", 1.7/8", 2", 2½" ✓

Are the stays drilled at the outer ends..... NO. ✓
Margin stays: Diameter { At turned off part, or 2", 2 1/8" x 1.7/8"
Over threads.....
No. of threads per inch..... 10 ✓
Tubes: Material Steel External diameter { Plain 3 1/2" - Thickness 7 W.G. 5/16" 3/8" 7/16" No. of threads per inch 9 ✓
Stay 3 1/2" -
Pitch of tubes 4 3/4 x 4.7/8 Manhole compensation: Size of opening in
shell plate 16" x 12" Section of compensating ring 36 3/4" 1.13/32 No. of rivets and diameter of rivet holes 106 - 1.7/16"
Outer row rivet pitch at ends 10 3/4 Depth of flange if manhole flanged 3 1/4" Steam Dome: Material STEEL
Tensile strength 26/30 ✓ Thickness of shell 3/4" Description of longitudinal joint S.R. LAP. 54%
Diameter of rivet holes 1.1/32" ✓ Pitch of rivets 2 1/4" Percentage of strength of joint { Plate 54%
Rivets 43.8%
Internal diameter 2' - 9" Thickness of crown 7/8 No. and diameter of
stays TWO - 2.3/8" ✓ Inner radius of crown Flat.
How connected to shell Double riveted. ✓ Size of doubling plate under dome 4-11 1/4 x 1.13/32 Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell 1.7/16 - 4" ✓
Type of Superheater MELESCO. Manufacturers of { Tubes SEE MANCHESTER CERTIFICATE.
Steel forgings
Steel castings
Number of elements 48 Material of tubes Steel Internal diameter and thickness of tubes 20 MM. 2.5 MM.
Material of headers Steel Tensile strength Thickness Can the superheater be shut off and
the boiler be worked separately 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 Sq.in. Are the safety valves fitted with easing gear Yes
Pressure to which the safety valves are adjusted 230 lbs. Hydraulic test pressure:
tubes 1000 lbs. forgings and castings 675 lbs. and after assembly in place 675 lbs. Are drain cocks or
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,
FOR CHARLES D. HOLMES & CO., LTD
Manufacturer.

Dates of Survey { During progress of work in shops - - 1952 Dec 10 19 1951 Jan 22 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building { During erection on board vessel - - - Feb 25 Mar 3, 4, 6 Total No. of visits 4

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

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

The Boiler has been constructed and installed under Special Survey
in accordance with the Secretary's letters, approved plans and the Rules.
The material and workmanship are good.
The boiler was examined under hyd. test of 380 lbs. per square inch. on
completion and found tight and sound.
The safety valves were adjusted under steam to 220 lbs. per square inch.

Survey Fee ... See Machy. Rpt. } When applied for, 19.....
Travelling Expenses (if any) £ : : } When received, 19.....

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUESDAY 7 JUL 1953

Assigned See F.E. machy. rpt



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Foundation