

1pt. 5a.

REPORT ON BOILERS.

No. 59205

Received at London Office

11 APR 1953

7 APR 1953

Port of HULL.

Date of writing Report 17. 3. 1953 When handed in at Local Office

No. in Reg. Book. 1228 Survey held at Hull.

Date, First Survey 9. 1. 52. Last Survey 4. 3. 1953

(Number of Visits 6) Tons { Gross 595 Net 207

on the S.Sc. Steam Trawler "ELLA HEWETT"

Built at Beverley. By whom built Cook, Welton & Gemmell, Ltd. Yard No. 871 When built 1953

Engines made at Hull. By whom made Charles D. Holmes & Co. Ltd. Engine No. 1841 When made -do-

Boilers made at Hull. By whom made -do- -do- Boiler No. 1841 When made 1952

Nominal Horse Power Owners. Heward Trawlers, Ltd. Port belonging to London.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

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

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 Single ended Multitubular Working Pressure 220 lb./sq. in.

Tested by hydraulic pressure to 380 lbs. Date of test 1.1.53. No. of Certificate 4388 Can each boiler be worked separately Sole

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 1-Double spring 3 1/2" dia.

Area of each set of valves per boiler { per Rule 19.2 sq. in. 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

Smallest distance between boilers or uptakes and bunkers or woodwork About 4'-0" 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 S.M. Steel. Tensile strength 31/35 tons.

If fusion welded, state name of welding Firm Have all the requirements of the Rules for Class I vessels D.R. Lap.

been complied with Thickness Are the shell plates welded or flanged No Description of riveting: circ. seams { end 3 3/8" inter 3 3/8"

long. seams Treble R.D.B.S. Diameter of rivet holes in { circ. seams 1.13/32" long. seams 1.7/16" Pitch of rivets { plate 9 3/8" rivets 9 3/8"

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%

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

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

Material Steel Tensile strength 26/30 tons. Smallest outside diameter 3'-9 1/2"

Length of plain part { top 11/16" bottom Thickness of plates 11/16" Description of longitudinal joint Welded.

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

End plates in steam space: Material 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 Steel Tensile strength 26/30 tons Thickness 15/16" back Steel Tensile strength 26/30 tons Thickness 29/32"

Mean pitch of stay tubes in nests 9 3/4" x 9 3/4" Pitch across wide water spaces 14 1/4"

Girders to combustion chamber tops: Material Steel Tensile strength 29/33 tons Depth and thickness of girder

at centre 9 1/2" 2 @ 7/8" Length as per Rule 2'-9 3/8" Distance apart 9 1/4" No. and pitch of stays

in each 3 @ 7 3/4" Combustion chamber plates: Material Steel

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

Pitch of stays to ditto: Sides 9 1/2" x 8 1/4" Back 9 3/4" x 8 1/4" Top 9 1/4" x 7 3/4" Are stays fitted with nuts or riveted over Nuts.

Front plate at bottom: Material Steel Tensile strength 26/30 tons Thickness 29/32"

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 29/32"

Pitch of stays at wide water space 14 1/4" x 8 1/4" Are stays fitted with nuts or riveted over Nuts

Main stays: Material Steel Tensile strength 28/32 tons

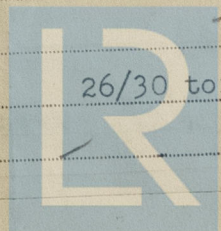
Diameter { At body of stay 3 1/4" No. of threads per inch 8

Over threads Steel Tensile strength 26/30 tons

Screw stays: Material Steel Tensile strength 10

Diameter { At turned off part 1 3/4" No. of threads per inch 10

Over threads Steel Tensile strength



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Are the stays drilled at the outer ends... No ✓ Margin stays: Diameter { ^{As turned off part} or 2" & 2 1/8" & 1.7/16" _{Over threads}

No. of threads per inch... 10

Tubes: Material Seamless Stl. External diameter { Plain... 3 1/2" Stay... 3 1/2" Thickness { 7 W.G. 5/16", 3/8", 7/16" No. of threads per inch... 9

Pitch of tubes 4 3/4" x 4.7/8" Manhole compensation: Size of opening shell plate 16" x 12" Section of compensating ring 36 3/4" x 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" in dome Steam Dome: Material Steel.

Tensile strength 26/30 Thickness of shell 3/4" Description of longitudinal joint S.R. Lap. Plate... 54% Rivets... 43.8%

Diameter of rivet holes 1.1/32" Pitch of rivets 2 1/4" Percentage of strength of joint

Internal diameter 2'-9" Thickness of crown 7/8 No. and diameter stays two - 2 3/8" Inner radius of crown flat

How connected to shell Double riveted. Size of doubling plate under dome 4'-11 1/2" 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 See Manchester Certificates.

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. ins. 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

Manufactured

Dates of Survey { During progress of work in shops - - } 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. "VAN DER OOST"

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 Rules.

The Materials and Workmanship are good.

The Boiler was examined under hydraulic test of 380 lb. per sq. in. on completion and found sound and tight.

The safety valves were adjusted under steam to 220 lb. per sq. in. and an accumulation test held.

See Machy. Rpt.

Survey Fee £ : : } When applied for... 19.....

Travelling Expenses (if any) £ : : } When received... 19.....

R. H. Newton
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute... TUES. 28 APR 1953

Assigned... See F. E. Machy. rpt.



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