

REPORT ON BOILERS.

No. 72424

Received at London Office 11 FEB 1948

ing Report 9.2.48 When handed in at Local Office 9.2.48 Port of GLASGOW.
Size of Survey held at MOTHERWELL Date, First Survey 10.7.47 Last Survey 22nd January 1948
on the (Number of Visits 11) Tons { Gross Net
Built at WILMO By whom built KOCKUMS MEK. VERK. Yard No. 304 When built
and made at By whom made Engine No. When made
made at MOTHERWELL. By whom made BROOMSIDE BOILER CO. LTD. Boiler No. 2145 When made 1948.
Horse Power Owners Port belonging to

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel COLVILLES LTD. (Letter for Record (S))
Heating Surface of Boilers 2784 3784 sq. ft. Is forced draught fitted
Description of Boilers Two - Marine Return Tube. Working Pressure 170 lb.
by hydraulic pressure to 305 lb. Date of test 23/12/47 No. of Certificate 22572
31/12/47 22584 Can each boiler be worked separately
Firegrate in each Boiler No. and Description of safety valves to each boiler
each set of valves per boiler { per Rule as fitted Pressure to which they are adjusted Are they fitted with easing gear
of donkey boilers, state whether steam from main boilers can enter the donkey boiler
distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers
distance between shell of boiler and tank top plating Is the bottom of the boiler insulated
internal dia. of boilers 11'-1 7/8" Length 11'-9 3/4" Shell plates: Material Steel Tensile strength 28/32 tons
Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R. inter. 2.86"
Pitch of rivets { 6.663"
Diameter of rivet holes in { circ. seams 15/16" long. seams 15/16"
Percentage of strength of circ. end seams { plate 67.4 rivets 45.3 Percentage of strength of circ. intermediate seam { plate 86.25 rivets 91.5
Working pressure of shell by Rules
age of strength of longitudinal joint { plate 86.25 rivets 91.5 combined 90.4
No. and Description of Furnaces in each Boiler TWO - MORISON
Material Steel Tensile strength 26/30 tons Smallest outside diameter 3'-6 1/2"
Thickness of plates { crown 17/32" bottom
Description of longitudinal joint Welded.
Working pressure of furnace by Rules
plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 7/8" Pitch of stays 16" x 14 1/2"
Working pressure by Rules
plates: Material { front Steel Tensile strength { 26/30 tons Thickness { 7/8" 53/64"
back
pitch of stay tubes in nests 8 7/8" Pitch across wide water spaces 13" Working pressure { front back
plates to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder
Length as per Rule 2'-4.27/32" Distance apart 8 1/4" No. and pitch of stays
Working pressure by Rules -- Combustion chamber plates: Material Steel.
Thickness: Sides 53/64" Back 53/64" Top 53/64" Bottom 53/64"
of stays to ditto: Sides 9" x 8 1/2" Back 8 7/8" x 8 5/8" Top 9" x 8 1/4" Are stays fitted with nuts or riveted over Yes
Working pressure by Rules -- Front plate at bottom: Material Steel Tensile strength 26/30 tons.
Thickness 7/8" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 7/8"
of stays at wide water space 13" Are stays fitted with nuts or riveted over Yes
Working Pressure -- Main stays: Material Steel Tensile strength 28/32 tons
At body of stay, 2 3/8" No. of threads per inch Welded Area supported by each stay
Over threads
Working pressure by Rules -- Screw stays: Material Steel Tensile strength 26/30 tons
At turned off part, 1 5/8" No. of threads per inch 9 Area supported by each stay
Over threads



Lloyd's Register Foundation

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Working pressure by Rules - Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, or Over threads } 1 3/4"

No. of threads per inch 9 ✓ Area supported by each stay - Working pressure by Rules -

Tubes: Material **S.D. STEEL.** External diameter { Plain 2 1/2" Stay 2 1/2" } Thickness { 9 W.G. 5/16" & 3/8" } No. of threads per inch 9

Pitch of tubes 3 1/2" x 3 5/8" Working pressure by Rules -

shell plate **16 x 20** 19 1/2" x 15 1/2" Section of compensating ring 9 1/2" x 7 3/8" ✓ No. of rivets and diameter of rivet holes 54 - 15/16"

Outer row rivet pitch at ends 6 3/4" ✓ Depth of flange if manhole flanged 3" ✓ Steam Dome: Material **None** ✓

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 - Working pressure by Rules - Thickness of crown - No. and

stays - Inner radius of crown - Working pressure by Rules -

How connected to shell - Size of doubling plate under dome - Diameter of rivet holes

of rivets in outer row in dome connection to shell -

Type of Superheater - Manufacturers of { Tubes Steel forgings Steel castings } Internal diameter and thickness of tubes -

Number of elements - Material of tubes - Tensile strength - Thickness - Can the superheater be sh

Material of headers - Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

the boiler be worked separately - Are the safety valves fitted with casing gear - Working press

Area of each safety valve - Pressure to which the safety valves are adjusted - Hydraulic test

Rules - forgings and castings - and after assembly in place - Are drain

tubes - 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 -

The foregoing is a correct description,
J. Marchant

Dates of Survey { During progress of work in shops - - } 1947 July, 10 Aug. 1, 7, Sep. 1, 4, 18 Oct. 2, Nov. 18 Dec. 23-27 Jan. 22
 { During erection on board vessel - - }
 Are the approved plans of boiler and superheater forwarded herewith APP
 (If not state date of approval.)
 Total No. of visits **11**

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

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

These boilers have been constructed under Special Survey in accordance with the approved plans and the Society's Rules.

The materials and workmanship are good.

The boilers were made to the order of Messrs. Kockums Mek. Verketstad, Malmo and intended for their yard No. 304.

Amended as per G/S letter 303/48 attached.
 Survey Fee ... £ **37** → ~~50~~
 Travelling Expenses (if any) £ : :
 When applied for, 10 FEB 1948 10
 When received, 10

Committee's Minute **GLASGOW 10 FEB 1948**
 Assigned *Approved for completion*
 C. Craenshaw R. Dale
 Engineer Surveyors to Lloyd's Register of Ships

