

# REPORT ON BOILERS.

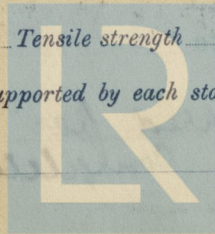
No. 72424

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 1410 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 Coal or Oil fired -  
 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 - Pressure to which they are adjusted - Are they fitted with easing gear -  
 as fitted  
 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  
 ss 57/64" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R. 7  
 inter. 2.86"  
 ms T.R.D.B.S. Diameter of rivet holes in { circ. seams 15/16" Pitch of rivets { 6.663"  
 long. seams 15/16"  
 age of strength of circ. end seams { plate 67.4 Percentage of strength of circ. intermediate seam { plate 27.6  
 rivets 45.3  
 age of strength of longitudinal joint { plate 86.25 Working pressure of shell by Rules  
 rivets 91.5  
 combined 90.4  
 ss of butt straps { outer 3/4" No. and Description of Furnaces in each Boiler TWO - MORISON  
 inner 7/8" Steel Tensile strength 26/30 tons Smallest outside diameter 3'-6 1/2"  
 of plain part { top - Thickness of plates { crown 17/32" Description of longitudinal joint Welded.  
 bottom - bottom  
 ons of stiffening rings on furnace or c.c. bottom - 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"  
 re stays secured Welded. See plan. Working pressure by Rules 416.4  
 plates: Material { front Steel Tensile strength 26/30 Tons Thickness { 7/8"  
 back 53/64"  
 pitch of stay tubes in nests 8 7/8" Pitch across wide water spaces 13" Working pressure { front -  
 back  
 s to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder  
 tre 8 1/2" x 1 1/2" Length as per Rule 2'-4.27/32" Distance apart 8 1/4" No. and pitch of stays  
 2 @ 9" Welded. See plan. Working pressure by Rules -- Combustion chamber plates: Material Steel.  
 e strength 26/30 tons 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 3/8" Top 9" x 8 1/4" Are stays fitted with nuts or riveted over Yes  
 ng pressure by Rules -- Front plate at bottom: Material Steel Tensile strength 26/30 tons.  
 ess 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  
 ng 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  
 ng 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



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Working pressure by Rules - Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, 1 1/4" or Over threads }  
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 - Manhole compensation: Size of 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 }  
Number of elements Material of tubes Internal diameter and thickness of tubes  
Material of headers Tensile strength Thickness Can the superheater be 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 Working pressure Rules Pressure to which the safety valves are adjusted Hydraulic test tubes forgings and castings and after assembly in place Are drain 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,

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. 11 } 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 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. Verkstad, Malmo and intended for their yard No. 304.

Amended as per G/S letter 30/3/48 attached.  
Survey Fee £ 37 50/- 8/- When applied for, 10 FEB 1948 10  
Travelling Expenses (if any) £ : : When received, 10

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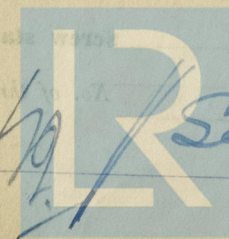
Committee's Minute

Assigned

Inspected for Completion

C. E. Canshaw M. Dele  
Engineer Surveyors to Lloyd's Register of Ships

FRI. 17 DEC 1948



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