

REPORT ON BOILERS.

No. 12205

Received at London Office.....

Date of writing Report 7th August 1947 When handed in at Local Office.....19..... Port of Cooper's Quay
 No. in g. Book. Survey held at Cooper's Quay Date, First Survey 26th October 1946 Last Survey 8th February 1947
 on the Battle of Britain Arsenal II (Number of Visits 16) Tons } Gross.....
 Net.....
 Built at London By whom built General de Office Yard No. When built.
 Engines made at By whom made Engine No. When made
 Boilers made at Cooper's Quay By whom made Art. Bunnell & Wainwright Boiler No. 2076 When made 1947
 Nominal Horse Power Owners Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Plates & Stays - Colville & Co. Furnaces: The Brunswick Boiler Works Ltd.
 Manufacturers of Steel Tubes: Tubes Ltd. Liscate, Rivets: Liscate & Co. Liscate (Letter for Record.....)
 Total Heating Surface of Boilers 2 x 131.75 m² Is forced draught fitted Coal or Oil fired oil fired
 and Description of Boilers 2 off horizontal multitubular Scotch Boilers Working Pressure 180 lbs/sq in
 tested by hydraulic pressure to 320 lbs/sq in Date of test 8.2.47 No. of Certificate 704-705 Can each boiler be worked separately. yes
 No. of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 off direct spring loaded 85 lb dia
 No. of each set of valves per boiler } per Rule 5850 wpm } pressure to which they are adjusted Are they fitted with easing gear yes
 as fitted 9240 wpm
 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 Is oil fuel carried in the double bottom under boilers
 Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated
 Largest internal dia. of boilers 3480 wpm Length 3165 wpm Shell plates: Material S. M. Steel Tensile strength 44 kg/cm²
 Thickness 24 wpm Are the shell plates welded or flanged no Description of riveting: circ. seams } end double 219 x 245
 inter 85.5 wpm
 59% seams Double butt straps 3/16 rivets Diameter of rivet holes in } circ. seams 27 wpm Pitch of rivets } 170 wpm
 } long. seams 26 wpm
 Percentage of strength of circ. end seams } plate 68.5 } Percentage of strength of circ. intermediate seam } plate 85.5
 } rivets 45.7 } } rivets
 Percentage of strength of longitudinal joint } plate 85.5 } Working pressure of shell by Rules 12.6 kg/cm² (180 lbs)
 } rivets 95.0 }
 combined 90.0
 Thickness of butt straps } outer 24 wpm } No. and Description of Furnaces in each Boiler 2 off division sections
 } inner 24 wpm }
 Material S. M. Steel Tensile strength 41 kg/cm² Smallest outside diameter 997 wpm
 Length of plain part } top Thickness of plates } crown 13.5 wpm Description of longitudinal joint welded
 } bottom } bottom
 Extensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 13.7 kg/cm²
 Plates in steam space: Material S. M. Steel Tensile strength 41-47 kg/cm² Thickness 25 wpm Pitch of stays 432 x 355 wpm
 Are stays secured Secured in both plates with nuts & washers - outside Working pressure by Rules 12.9 kg/cm²
 Front plates: Material } front S. M. Steel } Tensile strength 41-47 kg/cm² Thickness } 25 wpm
 } back }
 Pitch of stay tubes in nests 227 wpm Pitch across wide water spaces 355 wpm Working pressure } front 16.4 kg/cm²
 } back 19.6 kg/cm²
 Doors to combustion chamber tops: Material S. M. Steel Tensile strength 44 kg/cm² Depth and thickness of girder
 (215 x 19 wpm) x 2 Length as per Rule 744 wpm Distance apart 216 wpm No. and pitch of stays
 3 off 180 wpm apart Working pressure by Rules 17.2 kg/cm² Combustion chamber plates: Material S. M. Steel
 Tensile strength 41-47 kg/cm² Thickness: Sides 16 wpm Back 16 wpm Top 16 wpm Bottom 20 wpm
 of stays to ditto: Sides 180 x 216 wpm Back 196 x 205 wpm Top 180 x 216 wpm Are stays fitted with nuts or riveted over nuts in corners and
nuts on back and
 Working pressure by Rules 15.5 kg/cm² Front plate at bottom: Material S. M. Steel Tensile strength 41-47 kg/cm²
 Thickness 25 wpm Lower back plate: Material S. M. Steel Tensile strength 41-47 kg/cm² Thickness 25 wpm
 of stays at wide water space D = 520 wpm Are stays fitted with nuts or riveted over nuts in corners & outside
 Working pressure 15.2 kg/cm² Main stays: Material S. M. Steel Tensile strength 44 kg/cm²
 At body of stay 23/4 No. of threads per inch 11 Area supported by each stay 153000 mm²
 Over threads
 Working pressure by Rules 16.4 kg/cm² Screw stays: Material S. M. Steel Tensile strength 44 kg/cm²
 At turned off part 1 1/2 No. of threads per inch 11 Area supported by each stay 40200 mm²
 Over threads

Working pressure by Rules 14.1 kg/cm² Are the stays drilled at the outer ends no Margin stays: Diameter 1 3/4"
No. of threads per inch 11 Area supported by each stay 57500 mm² Working pressure by Rules 14.3 kg/cm²
Tubes: Material S. C. Steel External diameter 2 1/2" Thickness 9.5 mm No. of threads per inch 11
Pitch of tubes 89 x 92 Working pressure by Rules 16 kg/cm² Manhole compensation: Size of opening 48 off 20 mm
shell plate 405 x 505 mm Section of compensating ring flanged No. of rivets and diameter of rivet holes 48 off 20 mm
Outer row rivet pitch at ends 179 mm Depth of flange if manhole flanged 90 mm Steam Dome: Material -
Tensile strength - Thickness of shell - Description of longitudinal joint -
Diameter of rivet holes - Pitch of rivets - Percentage of strength of joint -
Internal diameter - Working pressure by Rules - Thickness of crown - No. and diameter of rivets -
stays - Inner radius of crown - Working pressure by Rules - Diameter of rivet holes and pitch -
How connected to shell - Size of doubling plate under dome - 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 -
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 pressure -
tubes - forgings and castings - and after assembly in place - Are drain cocks -
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

AKTIESELSKABET
P.P. BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGERI

Dates of Survey while building 20/29/10-10/14-13/11-21/11-29/11-21/12 Are the approved plans of boiler and superheater forwarded herewith yes
During progress of work in shops 10/12-13/12-20/12-46 7/1-14/1-21/1-1/2-5/2-47 (If not state date of approval.)
During erection on board vessel - Total No. of visits 16

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. 625-27-28-47

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above 2 century boilers have been constructed under special survey in accordance with the Rules, the approved plans and the Secretary's letter E dated 9/2-47. The material has been tested as per certificate furnished and the workmanship is good. The data for the safety valves have not been checked but are given as stated by Burmeister & Wain.

625 Regina
627 Actor
628 Argus
642 Giso Copenhagen

Survey Fee 5.70.00
Travelling Expenses (if any) 3.00

When applied for 13/8 1947
When received 19

J. Langkilde Jensen
Engineer Surveyor to Lloyd's Register of Shipping

FRI. 16 APR 1948

Committee's Minute TUES. 18 NOV 1947

Assigned Su F.E. Welch, rph.



© 2020

Lloyd's Register Foundation