

## REPORT ON WATER TUBE BOILERS.

No. 2226

Received at London Office

Writing Report 4-7-19 53 When handed in at Local Office 19 Port of Toronto, Canada.  
 in Survey held at St. Catharines, Ont. & Date, First Survey 25.2.53. Last Survey 13-4-19 53  
 Book. (Number of Visits 5) Tons { Gross...  
 on the Net...  
 at Lauzon, Quebec. By whom built Davie Shipbldg. & Reprg. Co. Ltd. Yard No. 595 When built  
 es made at By whom made Engine No. When made  
 s made at St. Catharines, Ont. By whom made Foster Wheeler Limited Boiler No. When made  
 al Horse Power Owners Port belonging to

WATER TUBE BOILERS MAIN, ~~XXXXXXXXXXXX~~ Manufacturers of Steel Lukens Steel Co.

of Approval of plan 14.1.53. No. and Description or Type

Boilers Two (2) Foster Wheeler Type "D" Working Pressure 675 Tested by Hydraulic Pressure to Date of Test  
 Certificate Can each boiler be worked separately. Boilers & W.W. 6710 x 2  
 ed draught fitted Furnace Volume Total Heating Surface of Boilers Econ. 4970 x 2  
 d type of burners (oil) in each boiler 1135 cu.ft. 2

No. and description of safety valves on

oilier Area of each set of valves per boiler { per rule... Pressure to which they  
 as fitted...

justed Are they fitted with easing gear In case of donkey boilers state whether steam from main boilers can enter

donkey boiler Smallest distance between boilers or uptakes and bunkers or woodwork Height of boiler 24' 11 1/2"

and length 14' 10 3/8" x 18' 5 3/4" Steam Drums: Number in each boiler One (1) Inside diameter 48"

ess of plates 1 3/8" wrapper 3 7/16" Tubes Range of tensile strength A212-50-Grade B Are drum shell plates welded

ged welded If fusion welded, state name of welding firm Foster Wheeler Limited Have all the requirements of the Rules

ss I vessels been complied with Yes Description of riveting: Circ. seams long. seams

or of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of

oint: Plate Rivet Diameter of tube holes in drum 1.278, 2.028 Pitch of tube holes 1 7/8, 4 1/2 & 4.29

age strength of shell in way of tubes 31.3, 31.3 & 29.3 Steam Drum Heads or Ends: Range of tensile strength A212-50-Grade B

ess of plates 1 3/16, 1 3/16 Radius or how stayed Ellipsoidal Size of manhole or handhole 12" x 16" Water Drums: Number

boiler 1 Inside diameter 32" Thickness of plates 2 5/16 Range of tensile strength A212-50-Grade B Are drum shell plates

or flanged Welded If fusion welded, state name of welding firm Foster Wheeler Have all the requirements of the Rules

ss I vessels been complied with Yes Description of riveting: Circ. seams long. seams

or of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of

age strength of long. joint: Plate Rivet Diameter of tube holes in drum 1.278, 2.028 Pitch of tube holes 1 7/8, 4 1/2 & 3.72

age strength of drum shell in way of tubes 31.3, 36.4, 18.3 Water Drum Heads or Ends: Range of tensile strength A212-50-Grade B

ss of plates 13/16, 1 3/16 Radius or how stayed Ellipsoidal Heads Size of manhole or handhole 12" x 16"

or Sections: Number 3 Material ASTM Spec A-106 Thickness 1 1/2" Tested by hydraulic pressure to 1350 lbs.

Diameter 1 1/2, 2", 3" Thickness BWG 6, 9, 11 Number 1252, 143, 12 Steam Dome or Collector: Description of

shell Inside diameter Thickness of shell plates Range of tensile

Description of longitudinal joint If fusion welded, state name of welding

Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes

rivets Thickness of straps Percentage strength of long. joint plate rivet

or End Plates: Range of tensile strength Thickness Radius or how stayed

HEATER, Drums or Headers: Number in each boiler 4 Sections Inside diameter 7 3/4"

1 1/2" Material ASTM A-206 Class B Range of tensile strength USC Grade B PI Are drum shell plates welded

solid drawn If fusion welded, state name of welding firm Solid Drawn Have all the requirements of the Rules

I vessels been complied with Yes Description of riveting: Circ. seams long. seams

of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of

Plate Rivet Diameter of tube holes in drum 1 1/2" Pitch of tube holes 1 7/8" Percentage strength of

in way of tubes 33.3 Drum Heads or Ends: 4 ends Thickness 1 3/8" Range of tensile strength USC Grade B

how stayed Approved 14.1.53 Size of manhole or handhole 3406" x 2.781" Number, diameter, and thickness of tubes 1 1/2 11GA 120

hydraulic pressure to 1350 Date of test 13.3.53 Is a safety valve fitted to each section of the superheater which

t off from the boiler No. and description of safety valves Area of each set

Pressure to which they are adjusted Is easing gear fitted

ear. Has the spare gear required by the Rules been supplied

The foregoing is a correct description,

Manufacturer.

During progress of work in shops 25.2.53; 19.3.53; 13.3.53; 27.3.53; 13.4.53; Is the approved plan of boiler forwarded herewith No

During erection on board vessel Total No. of visits

a duplicate of a previous case No If so, state vessel's name and report No

REMARKS (State quality of workmanship, opinions as to class, &c. The Drums & Headers were made under the Special

f the Societys Surveyors and the tubes bent ready for fitting at the works of Foster Wheeler

Catharines, Ont., in accordance with the Rules and the Approved Plans. All welding done by

n-Melt process with approved Electrode. The materials were tested at the Mill. (See (P.T.O)

Fee ... \$300.00 : When applied for Mch. 5th 19 54

ling Expenses (if any) \$58.00 : When received 19

FRIDAY 11 JUN 1954

See Rpt. 4a

Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register

Foundation

012027-012031-0073



Identification Stampings after hydraulic test in Shop:

F.W.B. No. B.5115 Ser. No. 2350  
 Steam Drum Water Drum  
 LLOYD'S LLOYD'S  
 3217A 3063  
 T.P. 1065 T.P. 1065  
 D.P. 675 W.P. 675  
 E.G.W. 13.3.53.  
 9.3.53. L.D.M.

Wall Headers (3 each Blr.)

F.W.B. 5115 - 2350 F.W.B. 5116 - 2351

LLOYD'S LLOYD'S  
 T.P. 1350 T.P. 1350  
 D.P. 675 W.P. 675  
 25.2.53. 25.2.53.  
 L.D.M. L.D.M.

DeSuperheater Headers

F.W.B. 5115 - 2350 F.W.B. 5116 - 2351

LLOYD'S LLOYD'S  
 T.P. 300 T.P. 300  
 W.P. 150 W.P. 150  
 27.3.53. 27.3.53.  
 L.D.M. L.D.M.

F.W.B. No. 5116 Ser. No. 2351  
 Steam Drum Water Drum  
 LLOYD'S LLOYD'S  
 3217B 3064  
 T.P. 1065 T.P. 1065  
 D.P. 675 W.P. 675  
 E.G.W. 13.3.53.  
 9.3.53. L.D.M.

Superheater Headers. (4 each Blr.)

F.W.B. 5115 - 2350 F.W.B. 5116 -

LLOYD'S LLOYD'S  
 T.P. 1350 T.P. 1350  
 W.P. 675 W.P. 675  
 13.3.53. 27.3.53.  
 L.D.M. L.D.M.

Economizers

F.W.B. 5115 - 2350 F.W.B. 5116 - 2

LLOYD'S LLOYD'S  
 T.P. 1450 T.P. 1450  
 D.P. 725 D.P. 725  
 13.4.53. 13.4.53.  
 F.G.W. F.G.W.

General Remarks (Continued)

attached Certificates) The workmanship was good. The Drums were tested by hydraulic pressure to 1065 lbs. per square inch and the waterwall headers and superheater headers to 1350 lbs. per sq. inch.

The drums Headers and Tubes were shipped to the Davie Shipbuilding & Repairing Co. Levis, Quebec for assembly and installation.

Certificates etc.

- (1) Plate Report of Physical Tests.
- (2) Welding Report
- (3) Drum Weld Macrographs (2 off)

Plans (Retained pending completion of Boiler No. 5176 & 7

1. General Arrgt. of Boiler Main Sections
2. " " " " Longitudinal
3. Steam Drum Details
4. " " Internals.
5. Mud Drum Details
6. Sq. Water Wall Headers Details
7. Superheater Headers. Details.
8. " " & Element. Details.
9. Arrgt. & Details of Floor Tubes
10. " " " " Riser
11. " of Downcomers & Suphtr. Support
12. Economizer inlet & Outlet Conn. Hdrs.
13. DeSuperheater Inlet & Outlet Hdr. Deta
14. " Piping Details.
15. " 4" Sleeve Conn.
16. " 4" Nozzle
17. Standard Sleeve Conn. for 3" Pipe
18. " " " " 1/2" "
19. " " " " 3/4" "
20. Superheater Outlet Fitting
21. Typical End Plate Const. Wall Hor.
- 22/ Header End Detail.
23. Std. Pipe Welded to 10 3/4" O.D. Std.
24. Water Wall Hdr. End.

Miscellaneous Certificates.

A.B.S. Report No.

- (4) 52 - 3911 - 45
- (5) 52 - 22952 - 45
- (6) 52 - 3154 - 45
- (7) 52 - 3017 - 45
- (8) 52 - 23068 - 45
- (9) 52 - 23069 - 45
10. 53. - PA. 40456 - 45.

Material  
 Plate

Port of.  
 Coatesville Pa.

11. 51 - 4967 - 66
12. 52 - 4603 - 66
13. 52 - 4436 - 80
14. 53 - PH218-377
15. 53. - PH247-377
16. 52 - 27 - 602
17. 52 - D10003-646
18. 52 - D10007-646
19. 53. - D10013-646
20. 52 - C50070-636
21. 53 - C50288-636

Seamless Steel Header Tubing

Ellwood City, Pa.

" " Tubes

" " "

" " "

Beaver Falls, Pa.

E.R.W. " "

Welland, Ontario.

" " "

Detroit, Mich.

" " "

Cleveland, Ohio

22. Taylor Forge & Pipe Works Certificate covering Foster Wheeler Ltd. Purchase Order No. 23-23 Consisting of: Nozzles Flanges, etc.

23. Dept. Transport. 1294H. Inv. 10/657 Staybolt steel Header Tubing

24. D.54637 Req. DE 28337

Boiler Stools.

25. 31187

Orillia, Ont.