

# REPORT ON WATER TUBE BOILERS.

Completed 8th Aug. 19 50 When handed in at Local Office 8th Aug. 19 50 Port of Halifax, N. S.  
 Received at London Office 16 SEP 1950  
 Survey held at Halifax, N. S. Date, First Survey 28th Oct., 1949 Last Survey 26th July, 19 50  
 on the Steel Twin Screw Motorship "BAHIA THETIS" (Number of Visits 7) Gross 3830.75 Tons Net 2100.49  
 at Halifax, N. S. By whom built Halifax Shipyards, Ltd. Yard No. 18 When built 1950  
 Plates made at Milwaukee, Wis. By whom made Nordberg Manufacturing Co. Engine No. TSM-2155 (Installed 1950)  
 Boilers made at St. Catharines, Ont. By whom made Foster Wheeler, Ltd. Boiler No. 1705 When made 1949  
 Owners Argentine Government Port belonging to Buenos Aires.

**WASTE HEAT MAIN, AUXILIARY, OR DONKEY.** (Particulars also entered from Tto. Rpt. 5c No. 1330 forwarded herewith)  
 of Approval of plan Sept. 27th, 1948; Jan. 6th, 1949, Montreal. Manufacturers of Steel Shell-Carnegie Illinois Steel Corp. - Heads, The Steel Co. of Canada.

Boilers One - Single Drum Waste Heat Working Pressure 50 lbs. Tested by Hydraulic Pressure to 160 lbs. Date of Test 22-2-49  
 Certificate 1330 Can each boiler be worked separately (designed pressure 80 lbs.) Total Heating Surface of Boilers 1540 sq.ft.

Area of Fire Grate (coal) in each Boiler -  
 No. and description of safety valves on boiler One 1 1/2" Twin Cockburn Morrison Hi-Lift Area of each set of valves per boiler (per rule - as fitted 3.5 sq.ins. Pressure to which they adjusted 50 lbs./sq.in. Are they fitted with easing gear Yes

In case of donkey boilers state whether steam from main boilers can enter (No bunkers or woodwork near).  
 Smallest distance between boilers or uptakes and bunkers or woodwork 3'-2" to E.R. Casinelli  
 Height of boiler 7'-6" Inside diameter 23 1/2"

Steam Drums: Number in each boiler One Range of tensile strength 26 to 35 tons/sq.in. Are drum shell plates welded  
 Thickness of plates 7/16" If fusion welded, state name of welding firm Foster Wheeler Ltd., St. Catharines, Ont. Have all the requirements of the Rules  
 Class I vessels been complied with Yes Description of riveting: Circ. seams - long seams -

Pitch of rivets - Thickness of straps - Percentage strength of joint: Plate - Rivet - Diameter of tube holes in drum 2.015" Pitch of tube holes 4" 1 1/2" & 6"  
 Percentage strength of shell in way of tubes 37.125% min. Steam Drum Heads or Ends: Range of tensile strength 26 to 30 tons /sq.in.  
 Thickness of plates 3/4" Radius or how stayed 23" Rad. Size of manhole or handhole 12" x 16" Water Drums: Number

Are drum shell plates welded or flanged - If fusion welded, state name of welding firm - Have all the requirements of the Rules  
 Class I vessels been complied with - Description of riveting: Circ. seams - long seams -  
 Diameter of rivet holes in long. seams - Pitch of rivets - Thickness of straps - Percentage strength of joint: Plate - Rivet - Diameter of tube holes in drum - Pitch of tube holes -

Water Drum Heads or Ends: Range of tensile strength -  
 Thickness of plates - Radius or how stayed - Size of manhole or handhole -  
 Number One Material 8" I.D. O.H. steel pipe Thickness 7/8" Tested by hydraulic pressure to 160 lbs./sq.in.  
 Diameter 2" & 3" Thickness No. 9 & No. 8 B.W.G. Number Eight 2" & Two 3" Steam Dome or Collector: Description of

to shell - Inside diameter - Thickness of shell plates - Range of tensile strength -  
 Description of longitudinal joint - If fusion welded, state name of welding firm -  
 Have all the requirements for the Rules for Class I vessels been complied with - Diameter of rivet holes -  
 Thickness of straps - Percentage strength of long. joint - plate - rivet -

Superheater, Drums or Headers: Number in each boiler - Inside diameter -  
 Thickness - Material - Range of tensile strength - Are drum shell plates welded  
 If fusion welded, state name of welding firm - Have all the requirements of the Rules  
 Class I vessels been complied with - Description of riveting: Circ. seams - long seams -  
 Diameter of rivet holes in long. seams - Pitch of rivets - Thickness of straps - Percentage strength of joint: Plate - Rivet - Diameter of tube holes in drum - Pitch of tube holes - Percentage strength of shell in way of tubes - Drum Heads or Ends: Thickness - Range of tensile strength - Size of manhole or handhole - Number, diameter, and thickness of tubes - Tested by hydraulic pressure to - Date of test - Is a safety valve fitted to each section of the superheater which can be shut off from the boiler - No. and description of safety valves - Area of each set of valves - Pressure to which they are adjusted - Is easing gear fitted -

Is easing gear fitted -  
 Spare Gear. Has the spare gear required by the Rules been supplied Yes

The foregoing is a correct description,

(Dates also entered from Tto. Rpt. 5c - No. 1330).

During progress of work in shops June 4, Sept. 2, 29, Nov. 9, 27, Dec. 6, 14, 1948; Jan. 13, 18, Feb. 7, 17 & 22, 1949  
 During erection on board vessel Oct. 28, Nov. 1, 1949; Mar. 23, May 17, June 16, 22, July 26, 1950. Total No. of visits 19  
 Manufacturer. Is the approved plan of boiler forwarded herewith Yes

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. M.V. "BAHIA AGUIRRE"-Hfx. Rpt. 4b-No. 6110 M.V. "BAHIA BUEN SUCESO" " " " " No. 6117

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c. This Waste Heat Donkey Boiler has been built under the supervision of the Society's Surveyors and installed on board the vessel in accordance with the Requirements of the Rules and the Approved Plans. (See also Tto. Rpt. 5c No. 1330). The safety valves have been adjusted under steam to pressure as stated above, and the boiler has been tested under working conditions and found satisfactory. The workmanship and materials are good, and it is recommended that this Waste Heat Donkey Boiler, in conjunction with the Main Machinery, is eligible, in our opinion, to be classed LMC 8,50. (Collected at Toronto)

Survey Fee (See Tto. Rpt. 5c - No. 1330) When applied for 19  
 Travelling Expenses (if any) £ (Incl. in Hfx. Rpt. 4b- No. 6134) When received 19

Date FRI, 29 SEP 1950

Committee's Minute See minute on J.C. Rpt.

