

REPORT ON WATER TUBE BOILERS.

No. 14646

Received at London Office

Date of writing Report 29th Aug 1957 When handed in at Local Office 19 Port of TRIESTE
 No. in Survey held at Trieste Date, First Survey see Rpt 4a Last Survey 19
 Reg. Book. 0014 on the Steam Turbine Tanker "ADRIANA AUGUSTA" (Number of Visits) Tons Gross 30383
Net 18826
 Built at Trieste By whom built C.R.D. Adriatico Yard No. 1823 When built 1957
 Engines made at Trieste By whom made C.R.D. Adriatico Engine No. 299/301 When made 1957
 Boilers made at Trieste & Mountaintop PA By whom made Foster Wheeler & CRDA Boiler No. 2031/2032 When made 1956/7
 HS for Register Book 20,140 Owners PRORA S.A.p. Palermo Port belonging to Palermo

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Lukens Steel Co., U.S.A.

Date of Approval of plan 29th July 1955 (New York) No. and Description or Type of Boilers Two Foster Wheeler 2 drum 'D' type

Working Pressure 650 lb/sq.inch Tested by Hydraulic Pressure to 1025 Date of Test 6 & 13.12.56
 No. of Certificate 434/435 Can each boiler be worked separately Yes Total Heating Surface of Boilers 2x6290 (210) Superheaters 2x1295
 Half Economisers 2485 Is forced draught fitted Yes Area of Fire Grate (coal) in each Boiler Oil fired = 20980

No. and type of burners (oil) in each boiler 3 Todd Burners No. and description of safety valves on each boiler 2. 2" dia. Full bore spring loaded

Area of each set of valves per boiler per rule 2.96 sq.ins.
as fitted 3.1416 sq.ins. Pressure to which they are adjusted 675 & 670 lb/sq.in.

Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers or uptakes and bunkers or woodwork Ample Height of boiler 24'-11 1/2"
 Width and length 18' x 15'-4" Steam Drums:—Number in each boiler One Inside diameter 46 7/8" R.2276

Thickness of plates 1 3/16" and 3 7/16" Range of tensile strength 70,000 lbs/sq.ins. Are drum shell plates welded or flanged welded

If fusion welded, state name of welding firm Foster Wheeler Corp. Have all the requirements of the Rules for Class I vessels been complied with Yes (Phi Report 10496)

Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps

Percentage 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" Percentage strength of shell in way of tubes 31.3 Min.

Steam Drum Heads or Ends:—Range of tensile strength 70,000 lb/sq.inc.
 Thickness of plates 1.3/16" Radius or how stayed Ellipsoidal Size of manhole or handhole 16" x 12"

Water Drums:—Number in each boiler one Inside diameter 30 1/2" Thickness of plates 2 5/16" Range of tensile strength 70,000 lb/sq.in.

Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Foster Wheeler

Have all the requirements of the Rules for Class I vessels been complied with Yes (Phi.Rpt.10496)

Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps

Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum As steam drum

Pitch of tube holes As steam drum Percentage strength of drum shell in way of tubes 31.4

Water Drum Heads or Ends:—Range of tensile strength 70,000 lbs/sq.in.
 Thickness of plates 13/16" & 1 3/16" Radius or how stayed dished Size of manhole or handhole 16" x 12"

Headers or Sections:—Number 3 Material S.M.S. Thickness 7/8" Tested by hydraulic pressure to 1063 PSI

Tubes:—Diameter 1 1/4" & 2" Thickness 0.109" & 0.148" Number 1254 and 208

Steam Dome or Collector:—Description of joint 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

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

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

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

Thickness 1 1/2" Material S.M.S. Range of tensile strength Pitt.Cert. T.9466

Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Foster Wheeler

Have all the requirements of the Rules for Class I vessels been complied with Cle. Certif. C.10141

Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps

Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum

Pitch of tube holes Percentage strength of drum shell in way of tubes

Drum Heads or Ends:—Thickness Range of tensile strength

Number, diameter, and thickness of tubes 190-1 1/4" x 0.12"
 Radius or how stayed Size of manhole or handhole

Tested by hydraulic pressure to 1052 PSI Date of test 12.4.57 & 7.5.57

Is a safety valve fitted to each section of the superheater which can be shut off from the boiler Yes

No. and description of safety valves One. 1 1/2" dia. full bore spring loaded Area of each set of valves 1.765 sq.ins.

Pressure to which they are adjusted 624 PSI Is easing gear fitted Yes

Spare Gear. Has the spare gear required by the Rules been supplied Yes

Cantieri Riuniti Dell'Adriatico
 The foregoing is a correct description,
 Manufacturer.

Dates of Survey During progress of work in shops
 while building During erection on board vessel
 Is the approved plan of boiler forwarded herewith Yes
 Total No. of visits

Is this boiler similar to a previous case yes If so, state vessel's name and report No. "MIRELLA d'AMICO" Tri. N° 13939

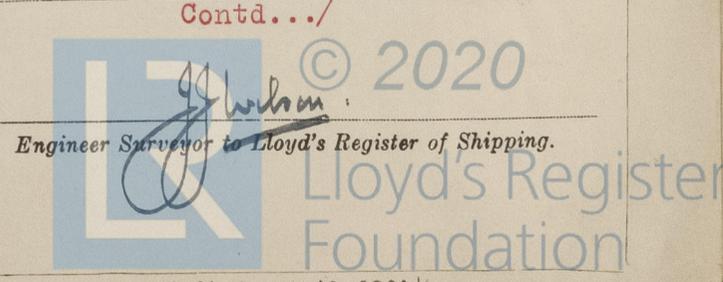
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. See Philadelphia Rpt. 5c N° 10496 and Cleveland, Ohio Cert. N°s.C.10025 and C.10141. The welded drums and headers were supplied by Foster Wheeler, U.S.A. Tubes (tested to Rule requirements) were manufactured in Italy. The boilers,

superheaters and economisers have been assembled by C.R.D.A., in accordance with the approved plans and Rule requirements and have been hydraulically tested.

Survey Fee 234.450 Less 10% Lit. 498.283 When applied for 27.9 19 57
 Travelling Expenses (if any) See Rpt 4a When received 19

Date FRIDAY 25 OCT 1957

Committee's Minute See Rpt 1a



on the ~~STEAM~~ STEAM TURBINE TANKER " ADRIANA AUGUSTA "

Boiler to 1025 PSI - Superheaters to 1052 PSI - Economisers to 1422 PSI on the 7th and 15th Jan., 1957 in the shops after assembly and again when efficiently installed aboard the above vessel.

The materials and workmanship are good.

Boilers, superheaters and economisers have been examined under steam and their safety valves adjusted as detailed above.

Satisfactory accumulation tests have been carried out.

A steam generator (See Genoa Cert. N^os. M.1561 and M.1583) has also been efficiently installed in the above vessel, examined under working condition and the safety valves adjusted to Rule requirements.

The two Main W.T. boilers and steam generator are eligible, in my opinion, for the highest classification and to have the notations :

2 W.T. boilers 650 PSI Supt. 624 PSI F.D. O.F.

Heating surface 20,140 sq.ft.

One steam generator 128 PSI

J. J. Williams



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