

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. 13965

Received at London Office

20 APR 1954

Date of writing Report 8.4.1954 When handed in at Local Office 10.4.1954

Port of TRIESTE

No. in Survey held at TRIESTE Date, First Survey Please see Rpt. 4a Last Survey 29th March, 1954
 Reg. Bk. 40464 on the Steam Tanker "MARE ADRIACUM" (Number of Visits) Gross 20451 Tons Net 12455
 Master - Built at TRIESTE By whom built Cantieri Riuniti dello Adriatico When built 1954 - 3
 Engines made at Lynn Mass. U.S.A. By whom made General Electric Co. When made 1953
 Boilers made at Cartered N.J. U.S.A. By whom made F.W. Co., & C.R.D.A. When made 1953
 Assembled Trieste Registered Horse Power 16,000 Owners Fratelli d'Amico Armatori Port belonging to TRIESTE
 Shaft

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Shells, Lukens, Heads, Beth. Steel Co. Headers, Foster Wheeler & Co. Tubes, Dalmine
 (Letter for Record) Date of Approval of plan 21.4.52 New York Number and Description or Type
 of Boilers Two W.T. Foster Wheeler Working Pressure 650 lbs./sq. in. Tested by Hydraulic Pressure to 1025 lbs./sq. in. Date of Test 20 & 21.5.53
 No. of Certificate 398 & 399 Can each boiler be worked separately yes Total Heating Surface of Boilers Supt. 1223 sq. feet Boiler 6710
 Is forced draught fitted yes Area of fire grate (coal) in each Boiler 3 (Todd) Total grate area of boilers in vessel including EACH
 Main and Auxiliary No. and type of burners (oil) in each boiler 2 full bore on Main Drum No. and description of safety valves on
 each boiler 2 full bore on Main Drum Area of each valve 3.1416 sq. ins. Pressure to which they are adjusted 675 & 670 lbs./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
 Smallest distance between boilers or uptakes or bunkers or woodwork ample Height of Boiler 24' - 11" Width and Length 18' x 15' - 4"
Steam Drums:—Number in each boiler one Inside diameter 48" Material of plates E.F.S. Thickness 1.3/16" & 3.7/16"
 Range of Tensile Strength 70,000 lbs./sq. in. Min. Are drum shell plates welded or flanged welded Description of riveting:—
 Cir. seams Welded by Foster Wheeler Corp. U.S.A. Diameter of rivet holes in long. seams Pitch of Rivets
 Lap of plate or width of butt straps 1.278"/2.026" Percentage strength of long. joint:—Plate Rivet
 Diameter of tube holes in drum 3.026" Pitch of tube holes 1.875" & 4.5" Percentage strength of shell in way of tubes 31.3 & 54.7
 If Drum has a flat side state method of staying Depth and thickness of girders at centre
 (if fitted) Distance apart Number and pitch of stays in each Working pressure
 by rules E.F.S. Thickness 1.13/16" Radius or how stayed Ellipsadal
Water Drums:—Number in each boiler one Inside Diameter 30" Min.
 Size of Manhole or Handhole 12" x 16" Range of tensile strength 70,000 PSI Min. Are drum shell plates welded
 Material of plates E.F.S. Thickness 2.5/16" long. seams Diameter of Rivet Holes in
 or flanged welded Description of riveting:—Cir. seams Pitch of rivets Thickness of straps 1.875"/4.5"
 long. seams Pitch of rivets Lap of plates or width of butt straps 1.278"/2.026" Pitch of tube holes 1.875"/4.5"
 Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum 3.026" Pitch of tube holes 1.875"/4.5"
 Percentage strength of drum shell in way of tubes 31.3 & 54.7 **Water Drum Heads or Ends:**—Material E.F.S. Thickness 1.3/16"
 Radius or how stayed Ellipsadal Size of manhole or handhole 12" x 16" Headers or Sections:—Number three
 Material E.F.S. Thickness 0.906" Tested by Hydraulic Pressure to 1025 lbs./sq. in. Material of Stays
 Area at smallest part Area supported by each stay Working Pressure by Rules as appd. Tubes:—Diameter 3" 2" & 1.1/4"
 Thickness .315 & .203/.146/.11" Number 12/210/1254 **Steam Dome or Collector:**—Description of Joint to Shell
 Percentage strength of Joint Diameter Thickness of shell plates Working Pressure of shell
 Description of longitudinal joint Diameter of Rivet Holes Pitch of Rivets
 by Rules **Crown or End Plates:**—Material Thickness How stayed
SUPERHEATER. Type F.W. Co. Date of Approval of Plan N.Y. Surveyors Tested by Hydraulic Pressure to 1025 lbs./sq. in.
 Date of Test 27.7.53 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler yes
 Diameter of Safety Valve 1 1/2" Pressure to which each is adjusted 624 lbs./sq. in. Is easing gear fitted yes
 Is a drain cock or valve fitted at lowest point of superheater yes Number, diameter, and thickness of tubes 190 - 1 1/4" x .118"
 Spare Gear. Tubes To Gaskets or joints. Manhole Rule Handhole plates Requirements.

The foregoing is a correct description,

CANTIERI RIUNITI DELL'ADRIATICO
Fabbrica Macchine S. Andrea Manufacturer.

Appd. N.Y.

Dates During progress of work in shops - - - Please see Rpt. 4a
 while During erection on board vessel - - -
 building

Is the approved plan of boiler forwarded herewith

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The fusion welded steam & water drums of these boilers together with headers, superheaters & economisers were made & tested under the supervision of the Society's Surveyors in the U.S.A. (See N.Y. Rpt. 52288, Cert. C-9155, Cleveland Certs. N's C-8373, C-8374 & C-8375). The boiler drums & headers were subsequently despatched to Messrs. C.R.D.A. Trieste, where the boilers & superheaters have been assembled & tested to Rule requirements. The workmanship & materials are good. These boilers have been efficiently installed aboard the vessel and a satisfactory accumulation test made under steam with satisfactory results. The boilers were examined under steam, found tight and the safety valves adjusted for a working pressure of 650 PSI.

p.t.o.

Survey Fee ... See Rpt. 4(a) When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

Committee's Minute FRIDAY 28 MAY 1954 L.R. & I.I.

Assigned See Rpt. 4.

DUAL CLASS

Engineer Surveyor to Lloyd's Register of Shipping.

013186-013191-0112

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117. 4481.

at the steam drums and 624 PSI at the superheaters outlets.

These boilers with superheaters and economisers, are eligible, in my opinion, for classification with records of:

2 W T (Spt) 650 lbs. H.S. 20980 sq.ft. F.D.

J. J. Wilson



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