

# REPORT ON WATER TUBE BOILERS

No. 7904

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Writing Report 29th Sept. 1943 When handed in at Local Office 7th Oct. 1943 Port of Baltimore, Maryland

Survey held at Baltimore, Md. Date, First Survey 9th May Last Survey 26th Aug. 1943

Boilers on the S. S. "LEONARDO da VINCI" (Number of Visits - ) Gross 7515 Tons Net 4205

Spezia By whom built Ansaldo San Giorgia When built 1925

made at Sampierdarena By whom made Gio Ansaldo & Co. When made -

made at Sampierdarena By whom made Gio Ansaldo & Co. When made -

Indicated Horse Power 1116 1126 Owners Ministry of War Transpost Port belonging to Mombassa

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Not Known

Approval of plan 4 Yarrow Water Tube Working Pressure 200 lbs. Tested by Hydraulic Pressure to 350 lbs. Number and Description or Type

Certificate Can each boiler be worked separately Yes Total Heating Surface of Boilers 13628 sq. ft.

draught fitted Yes Area of fire grate (coal) in each Boiler Oil Fired

type of burners (oil) in each boiler 5 Todd "Hexpress"

boiler 2 High Lift Area of each set of valves per boiler 1918 25.71 = 12.855 sq. in. No. and description of safety valves on

tested 200 lbs. Are they fitted with easing gear Yes as fitted 4.1478 sq. in. Pressure to which they are adjusted

key boiler - Smallest distance between boilers or uptakes and bunkers or woodwork 1'6" from bunkers Height of boiler 15'2"

Manufacturers and Length 16' 0" x 10' 10" Steam Drums:—Number in each boiler One Inside diameter 50"

Thickness of plates .65", 2" in way of tubes Range of Tensile Strength - Are drum shell plates welded

type of plates Flanged No. If fusion welded, state name of welding firm - Have all the requirements of the rules

Class I vessels been complied with - Description of riveting:—Cir. seams DR Lap. long. seams D.R. Double Butt.

Number of rivet holes in long. seams 7/8" Pitch of rivets 4.44" Thickness of straps 17/32" Percentage strength of

long. joint:—Plate 80.29 Rivet - Diameter of tube holes in drum 1.78" Pitch of tube holes 2.563"

Percentage strength of shell in way of tubes 30.45% Steam Drum Heads or Ends:—Range of tensile strength -

Thickness of plates 27/32" Radius or how stayed 50" Size of manhole or handhole 15 1/2" x 11 3/4"

boiler 2 Inside Diameter 15.12" & Thickness of plates 17/32", 1 3/4" in way of tubes. Water Drums:—Number

or flanged Flanged If fusion welded, state name of welding firm - Are drum shell plates

Class I vessels been complied with - Description of riveting:—Cir. seams S.R. lap. long. seam DR Lap.

Number of rivet holes in long. seams 7/8" Pitch of rivets 2 25/32" Thickness of straps 17/32"

Percentage strength of long. joint:—Plate 68.54 Rivet 66.84 Diameter of tube holes in drum 1.78" Pitch of tube holes 2.56"

Percentage strength of drum shell in way of tubes 30.49 Water Drum Heads or Ends:—Range of Tensile strength -

Thickness of plates 13/16" Radius or how stayed 34" Radius Size of manhole or handhole 12" x 15 3/4"

Number of Sections:—Number - Material - Thickness - Tested by Hydraulic Pressure to -

Diameter 1.75" Thickness 9 B.W.G. Number 4 x 938 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 of the rules for Class I vessels been complied with - Diameter of rivet holes

Thickness of straps - Percentage strength of long. joint - Plate - Rivet -

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

Superheater. Drums or Headers:—Number in each boiler None Fitted Inside Diameter -

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:—Cir. seams - long. seams -

Number 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

shell in way of tubes - Drum Heads or Ends:—Thickness - Range of tensile strength -

Radius or how stayed - Size of manhole or handhole - Number, diameter, and thickness of tubes -

Hydraulic Pressure to - Date of Test - Is a safety valve fitted to each section of the superheater which

cuts off from the boiler - No. and description of Safety Valves - Area of each set

Pressure to which they are adjusted - Is easing gear fitted -

Gear. Has the spare gear required by the rules been supplied -

The foregoing is a correct description,

Manufacturer.

During progress of work in shops - During erection on board vessel -

Is the approved plan of boiler forwarded herewith Total No. of visits

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers were not built under Special Survey but have been thoroughly reconditioned, tested hydraulically. Workmanship and material appears to be good. An accumulation test made and the safety valves found satisfactory. Boilers were also examined under full steaming conditions and are, in my opinion, eligible to be classed and recorded.

Fee £ SEE REPT. 9 : When applied for, 19

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4 W.T.B. 200 lbs.

Wm. B. Cowin Engineer Surveyor to Lloyd's Register of Shipping.



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