

REPORT ON WATER TUBE BOILERS.

No. 19132

Received at London Office

7 FEB 1953

Writing Report 29-12-52 19

When handed in at Local Office 25-1-1953

Port of GENOA

Survey held at GENOA

Date, First Survey 7-9-50

Last Survey 22-12-52 19

on the TWIN SC. "ANDREA DORIA"

(Number of Visits 94)

Gross 2998.2

GENOA-SESTRI

By whom built S.A. ANSALDO-CANTIERI NAVALI

Yard No. 918

When built 1952

made at GENOA-SAMPIERDARENA

By whom made S.A. ANSALDO-STABIL. MECCANICO

Engine No. 51422

When made 1952

made at GENOA-SAMPIERDARENA

By whom made S.A. ANSALDO-STABIL. MECCANICO

Boiler No. 51422

When made 1952

Horse Power

Owners "ITALIA" Soc. per Azioni di NAVIGAZIONE

Port belonging to GENOA

WATER TUBE BOILERS MAIN, AUXILIARY OR DONKEY

Manufacturers of Steel SOCIETA ITALIANA ACCIAIERIE CORNICLIANO - TERNI - DALMINE

Approval of plan 13-4-50, 13-6-50, 18-9-50, 24-5-51

No. and Description or Type

Four - THREE DRUM CONTROLLED SUPERHEAT

Working Pressure 46 Kg/cm²

Tested by Hydraulic Pressure to 73 Kg/cm²

Date of Test 18-3-52, 26-3-52, 9-4-52, 18-4-52

Certificate 266-267-268-269 Can each boiler be worked separately YES

Total Heating Surface of Boilers 75304 sq. feet

draught fitted YES

Area of Fire Grate (coal) in each Boiler

type of burners (oil) in each boiler 9 - TOMB SYSTEM

No. and description of safety valves on

COCKBURN'S DOUBLE FULL BORE SAFETY VALVES

Area of each set of valves per boiler

per rule as approved

FITTED ON STEAM DRUM WITH DOUBLE CONTROL

Area of each set of valves per boiler

as fitted (cont. valves: 567 m²)

VALVE FITTED DIRECT

tested 4.8 Kg/cm² Are they fitted with easing gear YES

In case of donkey boilers state whether steam from main boilers can enter

key boiler NO

Smallest distance between boilers or uptakes and bunkers 3000 m/m

Height of boiler 8255 m/m

and length 8450 x 5685 m/m Steam Drums: Number in each boiler ONE

Inside diameter 1400 m/m

ss of plates 98 m/m x 48 m/m

Range of tensile strength 44/50 Kg/mm²

Are drum shell plates welded

SEAMLESS DRUM

fusion welded, state name of welding firm S.A. ANSALDO-STABIL. MECCANICO

Have all the requirements of the Rules

with FUSION WELDED

YES

Description of riveting: Circ. seams

long. seams

all vessels been complied with YES

Pitch of rivets

Percentage strength of

of rivet holes in long. seams

Pitch of rivets

Thickness of straps

int: Plate

Rivet

Diameter of tube holes in drum 51.4 - 32.4 m/m

Pitch of tube holes 80 - 50 m/m

age strength of shell in way of tubes 35.2 %

Steam Drum Heads or Ends: Range of tensile strength 41/47 Kg/mm²

ss of plates 67 m/m

Radius or how stayed 1250 m/m

Size of manhole or handhole 300 x 400 m/m

Water Drums: Number

boiler TWO

Inside diameter 610 m/m

Thickness of plates 45 m/m

Range of tensile strength 44/50 m/m

Are drum shell plates

or flanged FUSION WELDED

If fusion welded, state name of welding firm S.A. ANSALDO-STABIL. MECCANICO

Have all the requirements of the Rules

all vessels been complied with YES

Description of riveting: Circ. seams

long. seams

of rivet holes in long. seams

Pitch of rivets

Thickness of straps

age strength of long. joint: Plate

Rivet

Diameter of tube holes in drum 51.4 - 32.4 m/m

Pitch of tube holes 80 - 50 m/m

age strength of drum shell in way of tubes 35.2 %

Water Drum Heads or Ends: Range of tensile strength 41/47 Kg/mm²

ss of plates 38 m/m

Radius or how stayed 700 m/m

Size of manhole or handhole 300 x 400 m/m

Are drum shell plates

or Sections: Number FOUR

Material S.M. STEEL

Thickness 26 m/m

Tested by hydraulic pressure to 92 Kg/cm²

Diameter 32, 51, 83, 127 m/m

Thickness 25-5-8-9 m/m

Number 1654-405-3-10

Steam Dome or Collector: Description of

shell

Inside diameter

Thickness of shell plates

Range of tensile

Have all the requirements for the Rules for Class I vessels been complied with YES

Description of longitudinal joint

If fusion welded, state name of welding

rivets

Thickness of straps

Percentage strength of long. joint

plate

rivet

or End Plates: Range of tensile strength

Thickness

Radius or how stayed

HEATER, Headers: Number in each boiler TWO

Inside diameter 282 x 212 m/m

ss 44 m/m

Material ONE: S.M. STEEL

Range of tensile strength 45/55 Kg/mm²

Are drum shell plates welded

and SEAMLESS

If fusion welded, state name of welding firm

Have all the requirements of the Rules

all 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

at: Plate

Rivet

Diameter of tube holes in drum 28.3 m/m

Pitch of tube holes 46 m/m

all in way of tubes 38.4 %

Header Heads or Ends: FLAT

Thickness 45 m/m

Range of tensile strength 44-50 Kg/mm²

or how stayed

Size of manhole or handhole

Number, diameter, and thickness of tubes 370 - 28 m - 3.5 m/m

by hydraulic pressure to 73 Kg/cm²

Date of test 18-3-52, 26-3-52, 9-4-52, 18-4-52

Is a safety valve fitted to each section of the superheater which

cut off from the boiler YES

No. and description of safety valves COCKBURN'S DOUBLE FULL BORE SAFETY VALVES WITH

DOUBLE CONTROL VALVES FITTED ON STEAM DRUM

5 soft. valves: 7697 m/m²

Pressure to which they are adjusted 44.5 Kg/cm²

Is easing gear fitted YES

5 cont. valves: 567 m/m²

Has the spare gear required by the Rules been supplied YES

Manufacturer.

During progress of work in shops -

From 7-9-50 To 17-1-52

Is the approved plan of boiler forwarded herewith NO

During erection on board vessel -

From 18-9-51 To 22-12-52

Total No. of visits 94

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 HAVE BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED

AND ARE IN ACCORDANCE WITH THE APPROVED PLANS, SECRETARY'S LETTERS AND RULE REQUIREMENTS. THE MATERIALS, WORKMANSHIP AND WELDING

ARE GOOD. THE BOILERS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RULES FOR FUSION WELDED PRESSURE

OF CLASS 1. THE X-RAY NEGATIVES TAKEN ON THE WELDED JOINTS HAVE BEEN EXAMINED AND WELDING FOUND SOUND. THE RESULTS

ROUTINE TESTS WERE FOUND SATISFACTORY. UPON COMPLETION THE BOILERS HAVE BEEN EXAMINED UNDER HYDRAULIC PRESSURE TO

AND FOUND TIGHT AND SOUND IN EVERY RESPECT AT THAT PRESSURE. AFTERWARDS THESE BOILERS HAVE BEEN SATISFACTORILY FITTED AND

ON BOARD. SOME EXAMINED UNDER STEAM AND THEIR SAFETY VALVES ADJUSTED AS ABOVE.

EX 1309.300

Survey Fee 10% 981.900

When applied for 3/2/1953

avelling Expenses (if any) 61.143

When received 19

OR RUN 42.29.452

REV. TAX 42.33.892

Date

TUES. 24 FEB 1953

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See F. E. mchly not

Signature of Engineer Surveyor

Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register Foundation