

REPORT ON BOILERS.

No. 13768

4 AUG 1936

Received at London Office

Date of writing Report 30 July 1936 When handed in at Local Office 10 Port of Amsterdam

No. in Reg. Book. Survey held at Amsterdam Date, First Survey 10 June Last Survey 17 July 1936

on the Single Screw Motor Vessel "MIRALDA" (Number of Visits 22 -) Gross Tonnage 2002 Net Tonnage 4746

Master Built at Amsterdam By whom built N.V. Ned. Scheepb. M^g Yard No. 286 When built 1936

Engines made at Amsterdam By whom made N.V. Werkspun Engine No. When made 1936

Boiler made at Amsterdam By whom made N.V. Werkspun Boiler No. When made 1936

Nominal Horse Power 502 Owners N.V. Petroleum M^g La Carona Port belonging to Grounhoage

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Shell of Scotland Broomfield Boiler works Ltd (Letter for Record S)

Total Heating Surface of Boilers 2560 Is forced draught fitted Yes Coal or Oil fired Crude oil Working Pressure 180 lbs

No. and Description of Boilers on horizontal Multitubular boiler Tested by hydraulic pressure to 320 lbs Date of test 17-12-35 No. of Certificate 390 Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 Spring loaded Area of each set of valves per boiler per Rule 19.6 as fitted 19.60 Pressure to which they are adjusted 100 lbs 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 and bunkers or woodwork 600 mm Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated Yes Largest internal dia. of boilers 4400 mm Length 3460 mm Shell plates: Material SMS Tensile strength 29.75-30 ton

Thickness 29 mm Are the shell plates welded or flanged no Description of riveting: circ. seams end dbl riveted inter. long. seams dbl butt straps riveting - way riveted Diameter of rivet holes in circ. seams 30 mm Pitch of rivets 87 mm

Percentage of strength of circ. end seams plate 67.5 rivets 42.3 Percentage of strength of circ. intermediate seam plate rivets Working pressure of shell by Rules 104 lbs

Percentage of strength of longitudinal joint plate 85 rivets 85 combined 87 Thickness of butt straps outer 25 mm inner 25 mm No. and Description of Furnaces in each Boiler 3 Morrison's furnaces

Material SMS Tensile strength 26-30 ton Smallest outside diameter 1130 mm Length of plain part top bottom Thickness of plates crown 15 mm Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.e. bottom Working pressure of furnace by Rules 193 lbs End plates in steam space: Material SMS Tensile strength 26-30 ton Thickness 29 mm Pitch of stays 440 x 450

How are stays secured dbl nuts Working pressure by Rules 190 lbs Tube plates: Material front SMS back SMS Tensile strength 26-30 ton Thickness 25 mm

Mean pitch of stay tubes in nests 240 mm Pitch across wide water spaces 360 mm Working pressure front 220 lbs back 210 lbs

Girders to combustion chamber tops: Material SMS Tensile strength 20-32 ton Depth and thickness of girder at centre 320 x 30 mm Length as per Rule 700 mm Distance apart 220 mm No. and pitch of stays in each 3-200 mm Working pressure by Rules 210 lbs Combustion chamber plates: Material SMS

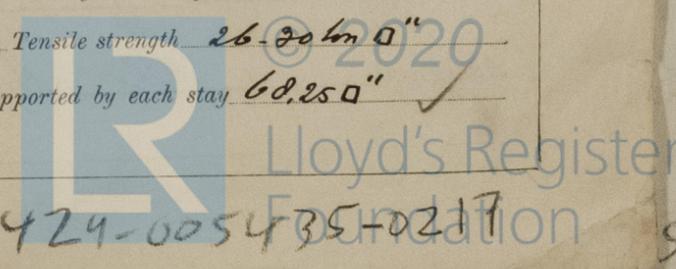
Tensile strength 26-30 ton Thickness: Sides 10 mm Back 19 mm Top 10 mm Bottom 25 mm Pitch of stays to ditto: Sides 200 x 200 mm Back 226 x 195 mm Top 200 x 220 mm Are stays fitted with nuts or riveted over welded over

Working pressure by Rules 196 lbs Front plate at bottom: Material SMS Tensile strength 26-30 ton Thickness 25 mm Lower back plate: Material SMS Tensile strength 26-30 ton Thickness 25 mm

Pitch of stays at wide water space 366 mm Are stays fitted with nuts or riveted over filled with nuts Working Pressure 190 lbs Main stays: Material SMS Tensile strength 20-32 ton

Diameter At body of stay, or over threads 3 No. of threads per inch 8 Area supported by each stay 3060 Working pressure by Rules 220 lbs Screw stays: Material SMS Tensile strength 26-30 ton

Diameter At turned off part, or over threads 1 1/2 No. of threads per inch 11 Area supported by each stay 6025



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Working pressure by Rules 105 lbs Are the stays drilled at the outer ends Yes Margin stays: Diameter ^{At turned off part,} 1 5/8"
 No. of threads per inch 11 Area supported by each stay 77.50 Working pressure by Rules 196 lbs
 Tubes: Material Iron External diameter ^{Plain} 2 3/4" Thickness ^{No. 9 U.S.G.} 5/16" and 7/16" No. of threads per inch 11
 Pitch of tubes 100 x 90 mm Working pressure by Rules plain 215 lbs. 7/16 195 lbs Manhole compensation: Size of opening in
 shell plate 370 x 470 mm Section of compensating ring 370" No. of rivets and diameter of rivet holes 54-32 mm
 Outer row rivet pitch at ends 220 mm Depth of flange if manhole flanged 00 mm Steam Dome: Material None
 Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
 Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint ^{Plate} _____
 Internal diameter _____ Working pressure by Rules _____ Thickness of crown _____ No. and diameter of
 stays _____ Inner radius of crown _____ Working pressure by Rules _____
 How connected to shell _____ Size of doubling plate under dome _____ Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell _____

Type of Superheater _____ Manufacturers of ^{Tubes} _____
 Number of elements _____ Material of tubes _____ ^{Steel castings} _____
 Material of headers _____ Tensile strength _____ Thickness _____ Can the superheater be shut off and
 the boiler be worked separately _____ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler _____
 Area of each safety valve _____ Are the safety valves fitted with easing gear _____ Working pressure as per
 Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure:
 tubes _____ castings _____ and after assembly in place _____ Are drain cocks or valves fitted
 to free the superheater from water where necessary _____

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes
 The foregoing is a correct description,
WERKSPOR N.V. Manufacturer.
[Signature]

Dates of Survey ¹⁹³⁵ During progress of work in shops - - June 10-25 July 10-25 Aug 12
 while building ^{Sept 16-26 Oct 3-16-29 Nov 11-22 Dec 9-17} Are the approved plans of boiler and superheater forwarded herewith
 (If not state date of approval.) E 17-3-24
 During erection on board vessel - - May 5-19-20 June 17-20-26 July 17 Total No. of visits 22

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M.V. Malcoma HMS up 13434

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The Boiler has been made in accordance with the approved plan and Secretary's letters, material fitted as per rules, workmanship throughout good. Boiler hydraulic tested as per rules found sound & tight. Properly fastened aboard, placed in Motor room aft in separate boiler room on a special made truss deck.

Survey Fee £ : : When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 7 AUG 1936**
 Assigned See Ans. J.E. 13768

