

REPORT ON BOILERS.

Received at London Office

2 OCT 1930

Date of writing Report 3. 7 30 When handed in at Local Office 26th SEPTEMBER 1930 Port of Greenock

No. in Reg. Book 381. Survey held at Greenock Date, First Survey 14th JANUARY 1930 Last Survey 26th SEPTEMBER 1930

on the M/S "Ed" "Milo" (Number of Visits 1) Gross Tons 8088 Net Tons 4930

Master Greenock Built at Glasgow By whom built Blythswood & Co Yard No. 29 When built 1930
 Engines made at Greenock By whom made John & Neave & Co L^d Engine No. 1164 When made 1930
 Boilers made at ditto By whom made ditto Boiler No. 1164 When made 1930
 Nominal Horse Power 1000 Owners Lobitos Oil Fields L^d Port belonging to London.

MULTITUBULAR BOILERS - MAIN, AUXILIARY, ~~DONKEY~~

Manufacturers of Steel Mitkower Bergbau Usius Metallurgische, & Utehoffnungskutte (Letter for Record S)

Total Heating Surface of Boilers 1680 Is forced draught fitted Yes Oil fired Yes Working Pressure 180

No. and Description of Boilers see single ended.

Tested by hydraulic pressure to 320 Date of test 30/6/30 No. of Certificate 1953 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler oil fuel No. and Description of safety valves to each boiler Colburn high lift (improved)

Area of each set of valves per boiler per Rule 6462 as fitted 9.81 Pressure to which they are adjusted 185 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 2-0 Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 21" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12.10 3/32" Length 11-0" Shell plates: Material S Tensile strength 29.33

Thickness 1 1/32" Are the shell plates welded or flanged - Description of riveting: circ. seams end 3.025 inter. 7 1/16"

long. seams TRIDBS Diameter of rivet holes in circ. seams 1 1/32" long. seams 1 1/32" Pitch of rivets 3.025

Percentage of strength of circ. end seams plate 65.9 rivets 42.4 Percentage of strength of circ. intermediate seam plate 85.5 rivets 88 Working pressure of shell by Rules 180.5

Percentage of strength of longitudinal joint plate 85.5 rivets 88 combined 88

Thickness of butt straps outer 13/16" inner 15/16" No. and Description of Furnaces in each Boiler 3 Deighton's

Material S Tensile strength 26.30 Smallest outside diameter 36" 30/32"

Length of plain part top bottom Thickness of plates circ. 15/32" bottom Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 182

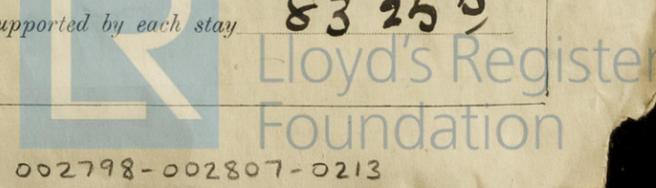
End plates in steam space: Material S Tensile strength 26.30 Thickness 1-3/32" Pitch of stays 18" 16 3/4"

How are stays secured DN. Working pressure by Rules 180

Tube plates: Material front back S Tensile strength 26.30 Thickness 3/32" 23/32"

Mean pitch of stay tubes in nests 9.79 Pitch across wide water spaces 13 3/4" Working pressure front 181 back 192

Girders to combustion chamber tops: Material S Tensile strength 28.32 Depth and thickness of girder at centre 9 1/2" x 3 1/4" (2) Length as per Rule 3.0 5/8" Distance apart 8 1/4" No. and pitch of stays in each 3 at 8 1/16" Working pressure by Rules 181 Combustion chamber plates: Material S Tensile strength 26.30 Thickness: Sides 2 1/32" Back 2 1/32" Top 2 1/32" Bottom 2 1/32" Pitch of stays to ditto: Sides 9 x 9 1/4" Back 8 5/8 x 9 1/2" Top 8 1/4 x 8 1/16" Are stays fitted with nuts or riveted over Nuts Working pressure by Rules 182 Front plate at bottom: Material S Tensile strength 26.30 Thickness 3/32" Lower back plate: Material S Tensile strength 26.30 Thickness 25/32" Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over Nuts Working Pressure 183 Main stays: Material S Tensile strength 28.32 Diameter At body of stay, or Over threads 2 3/4" No. of threads per inch 6 Area supported by each stay 306" Working pressure by Rules 182 Screw stays: Material S Tensile strength 26.30 Diameter At turned off part, or Over threads 1 5/8" No. of threads per inch 9 Area supported by each stay 83 25 1/2"



Working pressure by Rules **204** Are the stays drilled at the outer ends **90** Margin stays: Diameter **1 3/4 x 2"**
 No. of threads per inch **9** Area supported by each stay **99.18 sq. in.** Working pressure by Rules **182**
 Tubes: Material **Iron** External diameter **3"** Thickness **9 W.G.** No. of threads per inch **9**
 Pitch of tubes **4 3/16" & 4 1/4"** Working pressure by Rules **185** Manhole compensation: Size of opening in
 shell plate **16" x 12"** Section of compensating ring **2.10 1/2 x 2.6 1/2 x 1 1/8"** No. of rivets and diameter of rivet holes **36 at 1 1/4"**
 Outer row rivet pitch at ends **8 3/16"** Depth of flange if manhole flanged **3 1/2"** Steam Dome: Material
 Tensile strength Thickness of shell Description of longitudinal joint
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint
 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 Internal diameter and thickness of tubes
 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

The foregoing is a correct description,
 For John G. Kincaid & Co. Ltd.
 Director. Manufacturer.

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith **Yes**
 while building { During erection on board vessel - - - } (If not state date of approval.)
 Total No. of visits **1**

Is this Boiler a duplicate of a previous case **Yes** If so, state Vessel's name and Report No. **(1733) M/S "Aphelion" Feb R/L 19049**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 This boiler has been built under Special Survey in accordance with
 the approved plans & the workmanship & material are of good quality
 it is now securely fitted on board.
 This Report accords with that of the Machinery

Survey Fee **£** : : When applied for, **19**
 Charged on Machinery Report. Travelling Expenses (if any) : : When received, **19**
 W. Gordon Maclean
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 7 OCT 1930**
 Assigned **See accompanying report JMM**



Rpt. 5a.
 Date of writing
 No. in Reg. Book.
 90361
 Master
 Engines ma
 Boilers ma
 Nominal H
 MULTI
 Manufactur
 Total Heat
 No. and D
 Tested by
 Area of Fi
 Area of ea
 In case of
 Smallest di
 Smallest di
 Largest int
 Thickness
 long. seams
 Percentage
 Percentage
 Thickness
 Material
 Length of
 Dimensions
 End plates
 How are s
 Tube plate
 Mean pitch
 Girders to
 at centre
 in each
 Tensile str
 Pitch of st
 Working p
 Thickness
 Pitch of s
 Working
 Diameter
 Working p
 Diameter