

# REPORT ON BOILERS.

Received at London Office 2 OCT 1930

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

No. in Reg. Book 70361 on the M/S "El Mirlo" Date, First Survey 17<sup>th</sup> JANUARY 1930 Last Survey 26<sup>th</sup> SEPTEMBER 1930

Master Built at Glasgow By whom built Blythswood Yard No. 29 When built 1930  
Engines made at Greenock By whom made John & Curcald 102<sup>o</sup> Engine No. 1154 When made 1930  
Boilers made at ditto By whom made ditto Boiler No. 1154 When made 1930  
Nominal Horse Power Owners Lobilos Oil Fields L<sup>o</sup> Port belonging to London

## MULTITUBULAR BOILERS - AUXILIARY,

Manufacturers of Steel Wellknowler Bergbau Union Metallurgische Putschhoffnungshütte for Record S

Total Heating Surface of Boilers 1220.0 sq ft Is draught fitted Yes Oil fired Oil

No. and Description of Boilers one single ended Working Pressure 180

Tested by hydraulic pressure to 320 Date of test 30-6-30 No. of Certificate 1954 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler Oil Fuel No. and Description of safety valves to each boiler Cochran's Improved High Lift

Area of each set of valves per boiler {per Rule 4.696 sq ft as fitted 618 sq ft 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 Yes

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 11.2 1/16 Length 10-6 Shell plates: Material S Tensile strength 26.32

Thickness 15/16 Are the shell plates welded or flanged Yes Description of riveting: circ. seams {end 11/8 inter 3/8

long. seams T R D B S Diameter of rivet holes in {circ. seams 11/8 long. seams 1 Pitch of rivets {end 7 inter 7

Percentage of strength of circ. end seams {plate rivets 70.8 45.4 85.7 Percentage of strength of circ. intermediate seam {plate rivets 92.4 87.98

Percentage of strength of longitudinal joint {plate rivets 92.4 87.98 Working pressure of shell by Rules 182

Thickness of butt straps {outer 23/32 inner 27/32 No. and Description of Furnaces in each Boiler 2 Dugltons

Material S Tensile strength 26.30 Smallest outside diameter 3.0 15/16

Length of plain part {top bottom Thickness of plates {crown 15/32 bottom 15/32 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 11/32 Pitch of stays 16 1/2 x 16 1/2

How are stays secured DN Working pressure by Rules 182

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

Mean pitch of stay tubes in nests 9.78 Pitch across wide water spaces 14 Working pressure {front 184 back 192

Girders to combustion chamber tops: Material S Tensile strength 26.32 Depth and thickness of girder

at centre 8 1/4 + 3/4 (2) Length as per Rule 2.4.62 Distance apart 8 No. and pitch of stays

in each 2 at 10 Working pressure by Rules 183 Combustion chamber plates: Material S

Tensile strength 26.30 Thickness: Sides 21/32 Back 21/32 Top 21/32 Bottom 21/32

Pitch of stays to ditto: Sides 8 x 10 Back 9 x 9 1/4 Top 8 x 10 Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 180 Front plate at bottom: Material S Tensile strength 26.30

Thickness 1 Lower back plate: Material S Tensile strength 26.30 Thickness 25/32

Pitch of stays at wide water space 13 3/4 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 5/8 No. of threads per inch 6 Area supported by each stay 273.5 sq in

Working pressure by Rules 187 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 80 sq in

Working pressure by Rules 190 Are the stays drilled at the outer ends 970 Margin stays: Diameter 1 3/4"  
 No. of threads per inch 9 Area supported by each stay 103.5" Working pressure by Rules 214  
 Tubes: Material 9 W.G. External diameter 3" Thickness 9 W.G. No. of threads per inch 9  
 Pitch of tubes 4 1/4" x 4 3/16" Working pressure by Rules 182 Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 2.8 3/4" x 2.4 3/4" x 1 1/2" No. of rivets and diameter of rivet holes 38 at 1 1/8"  
 Outer row rivet pitch at ends 4 1/2" 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 { Plate \_\_\_\_\_ Rivets \_\_\_\_\_  
 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 \_\_\_\_\_ Steel castings \_\_\_\_\_  
 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. KINCARD & CO. LIMITED.  
Robert Green Director. Manufacturer.

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

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. (138) Fäthelsultau Gk Rpt 19126

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

Survey Fee charged on Machinery \_\_\_\_\_ : \_\_\_\_\_ When applied for, \_\_\_\_\_ 19 \_\_\_\_\_  
 Travelling Expenses (if any) \_\_\_\_\_ : \_\_\_\_\_ When received, \_\_\_\_\_ 19 \_\_\_\_\_

W. Gordon Muir  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 1 OCT 1930  
 Assigned See accompanying report JMM

