

# REPORT ON BOILERS.

Sld. No. 31628  
Sl. No. 55533

Received at London Office 20 MAR 1935

18 MAY 1935

Date of writing Report 14.3.1935 When handed in at Local Office 19.3.1935 Port of Glasgow

No. in Survey held at Annan Date, First Survey 4.1.35 Last Survey 13.3.1935

on the Air Storage Tanks, m.v. "Kivimoor" (Number of Visits 15) Tons { Gross 4970 Net 3032

ster Built at By whom built Yard No. When built

ines made at By whom made Engine No. When made

made at Annan By whom made Cochran & Co. Annan 4 Tanks Boiler No. K 302 When made 1935 " 303

inal Horse Power Owners Port belonging to

## ~~MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.~~

Manufacturers of Steel Boville's L<sup>d</sup> (Letter for Record )  
Capacity one  
Heating Surface of Boilers 9 1/2 cub ft Is forced draught fitted  Coal or Oil fired

and Description of Boilers 2-High Pressure Air Storage Tanks Working Pressure 600

ed by hydraulic pressure to 800 Date of test 13-3-35 No. of Certificate 19524 Can each boiler be worked separately

of Firegrate in each Boiler No. and Description of safety valves to each boiler

of each set of valves per boiler { per Rule as fitted Pressure to which they are adjusted Are they fitted with easing gear

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Least distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

Least distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

rest internal dia. of Tanks 3'-6" Length 10'-7 3/4" Shell plates: Material 8 Tensile strength 28-32

Thickness 1" Are the shell plates welded or flanged No Description of riveting: circ. seams { end J.R. inter. hil

seams T.R.I.B.S. Diameter of rivet holes in { circ. seams 1 9/32" long. seams 1 9/32" Pitch of rivets { 3 7/32" 7 1/2"

Percentage of strength of circ. end seams { plate 60.2 rivets 65.6 Percentage of strength of circ. intermediate seam { plate 83 rivets 132 combined 92.3

Percentage of strength of longitudinal joint { plate 83 rivets 132 combined 92.3 Working pressure of shell by Rules 603

Thickness of butt straps { outer 13/16" inner 15/16" No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Thickness of plain part { top Thickness of plates { crown Description of longitudinal joint

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

plates in steam space: Material 8 Tensile strength 26-30 Thickness 1 1/4" Pitch of stays

are stays secured  Working pressure by Rules 740

plates: Material { front Tensile strength Thickness { back

pitch of stay tubes in nests Pitch across wide water spaces Working pressure { front back

ers to combustion chamber tops: Material Tensile strength Depth and thickness of girder

Length as per Rule Distance apart No. and pitch of stays

Working pressure by Rules Combustion chamber plates: Material

Thickness: Sides Back Top Bottom

of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

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

Thickness Lower back plate: Material Tensile strength Thickness

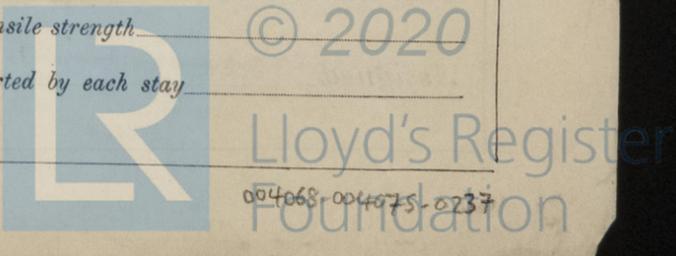
of stays at wide water space Are stays fitted with nuts or riveted over

Working Pressure Main stays: Material Tensile strength

At body of stay, or Over threads No. of threads per inch Area supported by each stay

Working pressure by Rules Screw stays: Material Tensile strength

At turned off part, or Over threads No. of threads per inch Area supported by each stay



Working pressure by Rules \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_ Margin stays: Diameter { At turned off part, \_\_\_\_\_  
 { Over threads \_\_\_\_\_  
 No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_  
**Tubes:** Material \_\_\_\_\_ External diameter { Plain \_\_\_\_\_ Thickness { \_\_\_\_\_ No. of threads per inch \_\_\_\_\_  
 { Stay \_\_\_\_\_  
 Pitch of tubes \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ **Manhole compensation:** Size of opening in  
 shell plate  Section of compensating ring \_\_\_\_\_ No. of rivets and diameter of rivet holes \_\_\_\_\_  
 Outer row rivet pitch at ends \_\_\_\_\_ Depth of flange if manhole flanged 4" **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 \_\_\_\_\_  
**FOR COCHRAN & Co., ANNAN, LTD.**  
 The foregoing is a correct description, *W.W.*  
*W.W.* **GENERAL WORKS MANAGER.**

Dates of Survey { During progress of work in shops - - } 1935 Jan. 4. 8. 15. 18. 22. 25. 29 Are the approved plans of boiler and superheater forwarded herewith \_\_\_\_\_  
 { During erection on board vessel - - - } Feb. 8. 18. 19. 21. 28 Mar 5. 8. 13 (If not state date of approval.)  
 Total No. of visits 15

Is this Boiler a duplicate of a previous case  If so, state Vessel's name and Report No.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) *These air tanks have been built under special survey in accordance with the approved plan, and the Society's Rules and requirements, the materials and workmanship are good.*

*They are intended for Mr. Dorsford & Sons Ltd No 614.*  
*19/3/35.*

Survey Fee ... .. £ 4 : 4 : - When applied for, \_\_\_\_\_  
 Travelling Expenses (if any) £ : : When received, \_\_\_\_\_

*J. Cairns*  
**MONTHLY ACCOUNT**

*Jas. Cairns,*  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **GLASGOW 19 MAR 1935** **FRI. 24 MAY 1935**  
 Assigned **TRANSMIT TO LONDON** *See Old. J.E. 31628*



Rpt.  
 Date of  
 No. in Reg. 8998  
 Built o  
 Owners  
 Electric  
 Is the V  
 System  
 Pressure  
 Direct o  
 If alternat  
 Has the A  
 Generator  
 are they ov  
 Where more  
 series with e  
 approved e  
 Are all term  
 short circuit  
 Position of  
 in way of th  
 woodwork or  
 are the generat  
 Earthing, an  
 in metallic con  
 a fuse on each  
 Switchboard  
 injury and dan  
 horizontally fro  
 materials  
 is it of an app  
 non-hygroscopic  
 type \_\_\_\_\_  
 Yes  
 omnibus bars  
 "off" position  
 switches \_\_\_\_\_  
 BPS + f  
 Are turbine drive  
 fire-resisting mate  
 voltmeters  
 E lamps  
 do these comply w