

REPORT ON BOILERS.

No. 8572

Date of writing Report 12. 2 1923 When handed in at Local Office

12. 2 1923

Received at London Office

Port of Sydney, N.S.W.

23 MAR 1925

No. in Reg. Book. Survey held at Sydney, N.S.W.

Date, First Survey 13. 1. 25

Last Survey 28. 1

1925

85731 on the T. S. S. "UNA" Ex "KOMET"

(Number of Visits 10)

Gross 977
Tons Net 335

Master Built at Vegesack By whom built Bremer Vulkan Yard No. When built 1911.

Engines made at Vegesack By whom made Bremer Vulkan Engine No. When made 1911

Boilers made at By whom made Boiler No. When made 1911

Nominal Horse Power Owners Port Philip Sea Pilots Port belonging to Williamstown

Vc.

All Particulars taken from Boilers - as far as possible

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

+G.H.

Manufacturers of Steel

Total Heating Surface of Boilers 4844 sq ft Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers Three Scotch Multitubular Working Pressure 192

Tested by hydraulic pressure to Date of test 1911. No. of Certificate Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 48 sq ft No. and Description of safety valves to each boiler Two Direct Spring

Area of each set of valves per boiler {per Rule 8.53 sq ft as fitted 15.34 sq ft Pressure to which they are adjusted 180 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 14" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 7 1/2" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12. 7" Length 10-4 1/8" Shell plates: Material Steel Tensile strength

Thickness 1 1/16" Bare Are the shell plates welded or flanged No Description of riveting: circ. seams {end double inter. 4 3/8

Long. seams Double Straps 4 R Diameter of rivet holes in {circ. seams 1 1/4" (1 3/32) long. seams 1 1/4" (1 3/32) Pitch of rivets {4 3/16 - 8 3/8 - 16 3/4

Percentage of strength of circ. end seams {plate 68% rivets 50% Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 92% rivets 98% combined 83% Working pressure of shell by Rules 2117 lbs

Thickness of butt straps {outer 7/8" inner 1 1/8" No. and Description of Furnaces in each Boiler Two Carryalls

Material Steel Tensile strength Smallest outside diameter 46 3/8"

Length of plain part {top bottom Thickness of plates {crown 5" full Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 190 lbs.

d plates in steam space: Material Steel Tensile strength Thickness 1 1/16" Pitch of stays 17 3/4" x 15"

How are stays secured Double nuts and washers Working pressure by Rules 230 lbs.

d plates: Material {front 1 1/16" Steel back 7/8" Steel Tensile strength Thickness {1 1/16" 7/8"

Pitch of stay tubes in nests 10" Pitch across wide water spaces 13 3/4" Working pressure {front 220 lbs. back 270 lbs.

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

Centre 8" x 1 1/4" Length as per Rule 28 1/2" Distance apart 7" No. and pitch of stays

Each 3 @ 6 5/8" Working pressure by Rules 250 lbs Combustion chamber plates: Material Steel

Tensile strength Thickness: Sides 5" Back 5" Top 5" Bottom 3/4"

Pitch of stays to ditto: Sides 8 1/4" x 6 5/8" Back 7 3/8" x 6 7/8" Top 7" x 6 5/8" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 250 to 270 lbs Front plate at bottom: Material Steel Tensile strength

Thickness 1 1/16" Lower back plate: Material Steel Tensile strength Thickness 7/8"

Pitch of stays at wide water space 13 3/4" Are stays fitted with nuts or riveted over Nuts

Working Pressure 215 lbs Main stays: Material Steel Tensile strength

Pitch of body of stay, 2 3/4" + 2 9/16" No. of threads per inch Six Area supported by each stay 266.25 sq in

Over threads 3 3/16" + 2 7/8" Screw stays: Material Steel Tensile strength

Working pressure by Rules 260 lbs At turned off part, 1 7/16" + 1 5/16" No. of threads per inch 9 Area supported by each stay 54.5 sq in

Over threads 1 3/4" + 1 1/2"

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Working pressure by Rules 230 lbs Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 9/16"
Over threads 1 3/4"
No. of threads per inch None Area supported by each stay 7401 sq" Working pressure by Rules 249
Tubes; Material ✓ External diameter { Plain 3 ✓ Thickness { 165 ✓ No. of threads per inch ✓
Stay 3 ✓
Pitch of tubes 4" x 4", Stays 10 Working pressure by Rules 245 lbs 70" Manhole compensation: Size of opening in
shell plate 15 3/4" x 11 13/16" Section of compensating ring 1 1/16" thick ✓ No. of rivets and diameter of rivet holes ✓
Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged ✓ 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 23 inclusive for boilers been complied with ✓

The foregoing is a correct description,

Manufacturer,

Dates { During progress of
of Survey { work in shops - -
while { During erection on
building { board vessel - - -

Are the approved plans of boiler and superheater forwarded herewith Yes
(If not state date of approval.)

Total No. of visits 10

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Three Main Boilers
were built under Germanischer Lloyd Special Survey in 1911. They
have been opened out, cleaned and surveyed in and out in all
parts, and found in very good condition, One furnace and one
back end combustion chamber plate drill tested with good results.
All mountings, manhole & Sludge doors examined and found good
Seen Sound and tight under steam, on account of the size of
Propeller Shafts the Safety valves on all three Boilers were set
to a working pressure of 180 lbs 70". Original pressure 192 lbs 70"
On the Forward Main Boiler the Stop Valve Main is direct on shell
of Boiler, on the two aft Main Boilers there is in each case a
strong ribbed Cast Steel Tee piece on end plates to which the Main
Stop Valves are bolted. These Boilers appear of good workmanship
are in good condition and eligible in our opinion for class.

Survey Fee £ : : } When applied for, ✓ 192
Travelling Expenses (if any) £ ✓ : : } When received, ✓ 192

A. C. Heron

as C. E. E. E. E.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

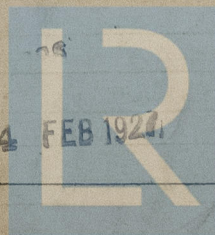
FRI. 31 JUL 1925

FRI. 9 OCT 1925

Assigned

FRI. 9 JUL 1925

FRI. 4 FEB 1926



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