

REPORT ON BOILERS.

No. 85779

Received at London Office 26 MAY 1930

NEWCASTLE-ON-TYNE

Date of writing Report 19 When handed in at Local Office 23rd May 1930. Port of

No. in Reg. Book. 40215 on the M.V. "EVINA" Date, First Survey 8 Oct. 1929 Last Survey 16 May 1930

(Number of Visits) Gross 6121 Tons Net 3570

Master Built at Walker By whom built Sir W.G. Armstrong Whitworth & Co. Ltd. Engine No. 87. When made 1930
Engines made at Scotswood By whom made Sir W.G. Armstrong Whitworth & Co. Ltd. Boiler No. 87. When made 1930
Boilers made at Scotswood By whom made Sir W.G. Armstrong Whitworth & Co. Ltd. Port belonging to KRISTIANSAND.
Nominal Horse Power 583. Owners Hansen Langen

MANOEUVRING AIR RECEIVERS.

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

Manufacturers of Steel Thies & Guthehoffnungshutte, Oberhausen. (Letter for Record)
CAPACITY OF AIR RECEIVER 200 cuft (each). Is forced draught fitted Coal or Oil fired

No. and Description of Boilers Two Riveted Air Receivers. Working Pressure 425 lb/sq in.

Tested by hydraulic pressure to 625 lb/sq in. Date of test Na. of Certificate Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler
Area of each set of valves per boiler (per Rule as fitted 88 sq ins. Pressure to which they are adjusted 425 lb/sq in. Are they fitted with easing gear

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 Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated
Largest internal dia. of boilers 4'-6" Length 11'-6" Shell plates: Material Steel Tensile strength 29-33 tons

Thickness 7/8" Are the shell plates welded or flanged No. Description of riveting: circ. seams (end inter. D.R. Cap
long. seams T.R. Double Butt Straps Diameter of rivet holes in (circ. seams 1 1/8" Pitch of rivets 3 1/4" long. seams 1" 6 3/32")

Percentage of strength of circ. end seams (plate 65.3% rivets 55.7%) Percentage of strength of circ. intermediate seam (plate 85.6% rivets 97%) Working pressure of shell by Rules 434.7 lb/sq in.

Percentage of strength of longitudinal joint (plate 85.6% rivets 97% combined 90.3%)
Thickness of butt straps (outer 1 1/16" inner 1 3/16") No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part (top bottom Thickness of plates (crown bottom Description of longitudinal joint

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules
End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness F. 1 1/4" 8 1/8" Pitch of stays Radius.

How are stays secured Working pressure by Rules 430.3 lb/sq in.
Tube plates: Material (front back Tensile strength Thickness Working pressure (front back

Mean pitch of stay tubes in nests Pitch across wide water spaces Working pressure (front back
Girders to combustion chamber tops: Material Tensile strength Depth and thickness of girder

at centre Length as per Rule Distance apart No. and pitch of stays
in each Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

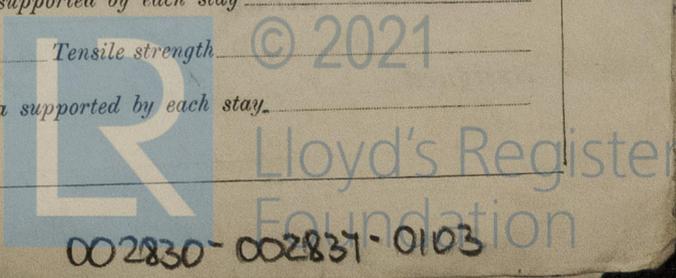
Working pressure by Rules Front plate at bottom: Material Tensile strength Thickness

Thickness Lower back plate: Material Tensile strength Thickness
Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Working Pressure Main stays: Material Tensile strength

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



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Working pressure by Rules *Are the stays drilled at the outer ends* Margin stays: Diameter *At turned off part, or Over threads*

No. of threads per inch Area supported by each stay Working pressure by Rules

Tubes: Material External diameter *Plain Stay* Thickness No. of threads per inch

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 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 *The foregoing is a correct description,*
SIR W. G. ARMSTRONG WHITWORTH & COMPANY (ENGINEERS) LIMITED
J. H. / J. H. / J. H. Manufacturer.

Dates of Survey *During progress of work in shops - -* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building *During erection on board vessel - - -* Total No. of visits

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.) *The Receivers have been built under Special Survey, and in accordance with the Society's Rules & approved plan. The materials & workmanship are sound & good. The safety valves were adjusted to the approved working pressure.*

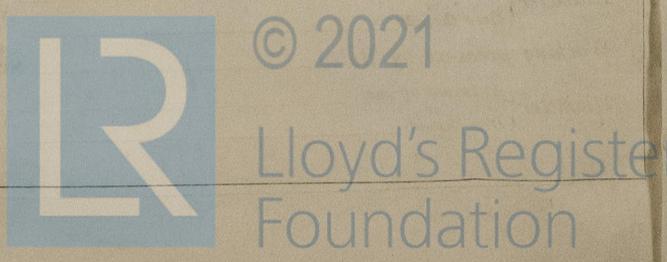
Survey Fee ... £ *See* When applied for, 19

Travelling Expenses (if any) £ *Meby Report* When received, 19

L. Pickett.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 3 JUN 1930

Assigned *See Sp. Rpt. attached*



Rpt. Date Reg. Ma. tes. No. ent. Ra. dr. ru. fu. pr. cr. pl. D. E. V. r. Certificate (if required) to be sent to Is a Report also sent on the hull of the ship? (The Surveyors are requested not to write on or below the space for Committee's Minutes.) [6c, 11, 20] - Copyable Ink.