

REPORT ON BOILERS.

Received at London Office 26 AUG 1930

Date of writing Report 192 When handed in at Local Office 23.8.30 Port of NEWCASTLE-ON-TYNE

No. in Reg. Book 75884 on the M.V. "KIM" Date, First Survey 13 Nov 29 Last Survey 18 Aug 1930

Survey held at Scotswood (Number of Visits ---) Gross 6074 Tons Net 3575

Master Built at Walker By whom built Sir W.G. Armstrong Whitworth & Co. Ltd Yard No. 1062 When built 1930
Engines made at Scotswood By whom made Messrs Sir W.G. Armstrong Whitworth & Co. Ltd Engine No. 89 When made 1930
Boilers made at Annan Scotswood By whom made Messrs Cochran & Co Annan Ltd 11593. 1930
Boiler No. 89 When made 1930
Nominal Horse Power 583. Owners Soerre Sturlung Port belonging to Bergen.

MANOEUVRING AIR RECEIVERS.

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

Manufacturers of Steel Messrs Gutehoffnungshutte Oberhausen. (Letter for Record)
Capacity of Air Receivers 400 cu ft. Is forced draught fitted Coal or Oil fired

No. and Description of Boilers Two Riveted Air Receivers Working Pressure 425 1/10"

Tested by hydraulic pressure to 625 1/10" Date of test 2.6.30 No. of Certificate 322543226 Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2. Spring loaded.
Area of each set of valves per boiler Pressure to which they are adjusted 425 1/10" 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 Receivers 4'-6" Length 11'-6" Shell plates: Material Steel Tensile strength 29-33 tons

Thickness 7/8" Are the shell plates welded or flanged Description of riveting: circ. seams end D.R. Loh
long. seams T.R. Double Butt Straps Diameter of rivet holes in circ. seams 1 1/8"
 long. seams 1" Pitch of rivets 6 27/32"

Percentage of strength of circ. end seams plate 65.3% rivets 55.7% Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 85.6% rivets 97.0% Working pressure of shell by Rules 434.7 1/10"
 combined 90.3%

Thickness of butt straps outer 1 1/10" inner 13/16" 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 1/2" B 1 3/8" RADIUS 3'-7 1/2"

How are stays secured Working pressure by Rules 430.3 1/10"
Tube plates: Material front back Tensile strength Thickness

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 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 casing 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 SIR W. G. WHITWORTH & COMPANY (ENGINEERS) LIMITED
 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 _____

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 and good. The safety valves were adjusted to the approved working pressure.*

Survey Fee ... £ *See Fee* When applied for, 192

Travelling Expenses (if any) £ *See Mech Report* When received, 192

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

Committee's Minute _____ TUE. 2 SEP 1930

Assigned _____ *See F.E. Rpt.*