

REPORT ON BOILERS.

No. 28967

Received at London Office

-8 DEC 1924

Writing Report 3rd Dec 1924 When handed in at Local Office 4th Dec 1924 Port of Sunderland

in Survey held at Sunderland Date, First Survey ✓ Last Survey 24th Nov 1924

on the new steel S.S. "CABIMAS" (Number of Visits ✓) (Gross Tons ✓) (Net Tons ✓)

Built at Jarrow-on-Tyne By whom built Palmer Shipbuilding Co. Ltd. Yard No. 952 When built 1924

Engines made at Sunderland By whom made MacColl & Pallock Ltd. Engine No. 343 When made 1924

Boilers made at Sunderland By whom made MacColl & Pallock Ltd. Boiler No. 343 When made 1924

Indicated Horse Power 186 Owners Gulf Refining Co. Ltd. Port belonging to Maracaibo

LTTUBULAR BOILERS—MAIN, ~~AUXILIARY~~, OR DONKEY

Manufacturers of Steel John Spenner & Sons & David Colville & Son Ltd. (Letter for Record (S))

Heating Surface of Boilers 3249 Is forced draught fitted ✓ Coal or Oil fired oil

Description of Boilers Two single ended marine type Working Pressure 180 lb

Tested by hydraulic pressure to 320 Date of test 24-10-24 No. of Certificate 3905 Can each boiler be worked separately ✓

of Firegrate in each Boiler oil fired No. and Description of safety valves to each boiler Two - Direct Spring Loaded

of each set of valves per boiler { per Rule 12.475 as fitted 14.125 Pressure to which they are adjusted 185 Are they fitted with easing gear yes

Use 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 No

Least distance between shell of boiler and tank top plating 24" Is the bottom of the boiler insulated No

Least internal dia. of boilers 12'-6 3/32" Length 11'-6" Shell plates: Material Steel Tensile strength 28 to 32 tons

Thickness 1 3/64" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R. LAP. inter. ✓

seams T.R. D.B.S. Diameter of rivet holes in { circ. seams 1 1/8" long. seams 1 1/8" Pitch of rivets { 3 1/6" 4.9"

Percentage of strength of circ. end seams { plate 69.49% rivets 42.8% Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓

Percentage of strength of longitudinal joint { plate 85.46% rivets 92.2% combined 90% Working pressure of shell by Rules 182 lb

Thickness of butt straps { outer 7/8" inner 1" No. and Description of Furnaces in each Boiler 2 - Deighton

Material Steel Tensile strength 26 to 30 tons Smallest outside diameter 45 3/8"

Thickness of plain part { top ✓ bottom ✓ Thickness of plates { crown 9/16" bottom 7/16" Description of longitudinal joint welded

Stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 184 lb

plates in steam space: Material Steel Tensile strength 26 to 30 tons Thickness 1 3/32" Pitch of stays 18 x 16 1/2"

Are stays secured Double nuts and washers Working pressure by Rules 186 lb

plates: Material { front Steel back Steel Tensile strength { 26 to 30 tons Thickness { 27/32" 3/4"

pitch of stay tubes in nests 12 3/4 x 8 3/4" Pitch across wide water spaces 14" Working pressure { front 184 lb back 182 lb

Boilers to combustion chamber tops: Material Steel Tensile strength 26 to 30 tons Depth and thickness of girder

centre 2 @ 8 1/8" x 7/8" Length as per Rule 31 5/8" Distance apart 10" No. and pitch of stays

each 2 @ 10" Working pressure by Rules 185 Combustion chamber plates: Material Steel

Stays strength 26 to 30 tons Thickness: Sides 1 1/16" Back 21/32" Top 23/32" Bottom 1 1/16"

Thickness of stays to ditto: Sides 9 1/4 x 9 1/8" Back 9 1/4 x 9" Top 10 x 10" Are stays fitted with nuts or riveted over Nuts in C.C.

Working pressure by Rules 180 Front plate at bottom: Material Steel Tensile strength 26 to 30 tons

Thickness 27/32" Lower back plate: Material Steel Tensile strength 26 to 30 tons Thickness 1 3/16"

Thickness of stays at wide water space 13" x 9" Are stays fitted with nuts or riveted over Nuts

Working Pressure 215 Main stays: Material Steel Tensile strength 28 to 32 tons

meter { 4 wing stays 2 3/4" No. of threads per inch 6 Area supported by each stay 294

Over threads other stays 2 5/8"

Working pressure by Rules 186 Screw stays: Material Steel Tensile strength 26 to 30 tons

meter { 1 3/4" side No. of threads per inch 9 Area supported by each stay 83.25 sq. in.

Over threads 1 5/8" back

Working pressure by Rules 182 Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { ^{at turned off part,} Over threads 1 3/4" ✓

No. of threads per inch 9 ✓ Area supported by each stay 100 Working pressure by Rules 180

Tubes: Material Iron External diameter { Plain 3" ✓ Thickness { 9 W.G. ✓ No. of threads per inch 9 ✓
Stay 3" ✓ 5/16" ✓

Pitch of tubes 4 1/4" x 4 1/8" ✓ Working pressure by Rules 190 Manhole compensation: Size of opening in

shell plate 16" x 12" ✓ Section of compensating ring 15" x 1 1/4" ✓ No. of rivets and diameter of rivet holes 28-18" ✓

Outer row rivet pitch at ends 4.9" ✓ 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** _____

Area of each safety valve _____ **Is a safety valve fitted to every part of the superheater which can be shut off from the boiler** _____

Rules _____ **Are the safety valves fitted with easing gear** _____ **Working pressure as per** _____

tubes _____, **Pressure to which the safety valves are adjusted** _____ **Hydraulic test pressure:** _____

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 Yes. ✓

The foregoing is a correct description,
 PER PRO MAGCOLL & POLLOCK LTD

J. H. Pillmug.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } Please see Memo Rpt.
{ During erection on board vessel - - }

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

Total No. of visits _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

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

192
George Anderson & Co. Ltd.
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

Lloyd's Register
Foundation