

REPORT ON BOILERS.

No. 83360

Received at London Office

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NEWCASTLE-ON-TYNE

Date of writing Report 1-10-1928 When handed in at Local Office 6-10-1928 Port of

No. in Survey held at *Jarrow* Date, First Survey *5 July* Last Survey *27 Sept 1928*

547 on the *S.S. "CREOLE JEFE"* (Number of Visits —) Gross *3126.5* Tons Net *1645.97*

ster Built at *Hebburn* By whom built *Palmers Co. Ltd.* Yard No. *986* When built *1928*

Engines made at *Jarrow* By whom made *Palmers Co. Ltd.* Engine No. *986* When made *1928*

Boilers made at *Jarrow* By whom made *Palmers Co. Ltd.* Boiler No. *986* When made *1928*

nominal Horse Power *288* Owners *Sir J. Isherwood & Co. (Provisional)* Port belonging to *Newcastle (Provisional)*

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *The Steel Company of Scotland Ltd* (Letter for Record *S*)

Total Heating Surface of Boilers *4808* Is forced draught fitted *YES* Coal or Oil fired *OIL*

No. and Description of Boilers *TWO S.E. CYLINDRICAL MULTITUBULAR 250* Working Pressure *180 LBS.*

Tested by hydraulic pressure to *320 LBS.* Date of test *27.8.28* No. of Certificate *297. 298* Can each boiler be worked separately *YES*

Area of Firegrate in each Boiler *—* No. and Description of safety valves to each boiler *TWO SPRING LOADED*

Area of each set of valves per boiler {per Rule *18.49* as fitted *19.24* Pressure to which they are adjusted *180 LBS.* 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 *1' 6"* Is oil fuel carried in the double bottom under boilers *No*

Smallest distance between shell of boiler and tank top plating *2' 1 1/2"* Is the bottom of the boiler insulated *YES*

Largest internal dia. of boilers *15' 0"* Length *11' 6" MEAN* Shell plates: Material *STEEL* Tensile strength *28-32 TONS.*

Thickness *1 1/4"* Are the shell plates welded or flanged *No* Description of riveting: circ. seams {end *D.R.L.* inter. *—*

Long. seams *T.R.D.B.S.* Diameter of rivet holes in {circ. seams *1 3/8"* long. seams *1 1/4"* Pitch of rivets { *3.954"* *8. 1/16"*

Percentage of strength of circ. end seams {plate *65.2%* rivets *49.6%* Percentage of strength of circ. intermediate seam {plate *—* rivets *—*

Percentage of strength of longitudinal joint {plate *85.6%* rivets *87.1%* combined *88.5%* Working pressure of shell by Rules *183.9 LBS.*

Thickness of butt straps {outer *31/32"* inner *1 3/32"* No. and Description of Furnaces in each Boiler *3 DEIGHTON SECTION 304*

Material *STEEL* Tensile strength *26-30 TONS.* Smallest outside diameter *3' 7 5/8"*

Length of plain part {top *10 1/2"* bottom *10 1/2"* Thickness of plates {crown *9/16"* bottom *9/16"* Description of longitudinal joint *WELD*

Dimensions of stiffening rings on furnace or c.c. bottom *—* Working pressure of furnace by Rules *187 LBS.*

End plates in steam space: Material *STEEL* Tensile strength *26-30 TONS.* Thickness *1 1/4"* Pitch of stays *21" x 21"*

How are stays secured *NUTS & WASHERS* Working pressure by Rules *182 LBS.*

Tube plates: Material {front *STEEL* back *STEEL* Tensile strength { *26-30 TONS.* Thickness { *15/16"* *21/32"*

Lean pitch of stay tubes in nests *9 3/8"* Pitch across wide water spaces *1' 2"* Working pressure {front *186 LBS.* back *202 "*

Girders to combustion chamber tops: Material *STEEL* Tensile strength *28-32 TONS.* Depth and thickness of girder

At centre *10" x 1 3/8"* Length as per Rule *2' 10 1/2"* Distance apart *10"* No. and pitch of stays

At each *3 @ 8 3/4"* Working pressure by Rules *182.7 LBS.* Combustion chamber plates: Material *STEEL*

Tensile strength *26-30 TONS.* Thickness: Sides *3/4"* Back *3/4"* Top *3/4"* Bottom *3/4"*

Pitch of stays to ditto: Sides *8 3/4" x 8 3/4"* Back *9" x 8"* Top *10" x 8 3/4"* Are stays fitted with nuts or riveted over *NUTS ON MARGINAL STAYS*

Working pressure by Rules *182.5 LBS.* Front plate at bottom: Material *STEEL* Tensile strength *26-30 TONS.*

Thickness *15/16"* Lower back plate: Material *STEEL* Tensile strength *26-30 TONS.* Thickness *29/32"*

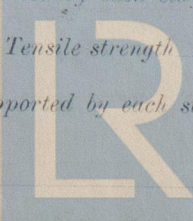
Pitch of stays at wide water space *d = 19.5* Are stays fitted with nuts or riveted over *NUTS*

Working Pressure *184 LBS.* Main stays: Material *STEEL* Tensile strength *28-32 TONS.*

Diameter {At body of stay, *—* or *—* Over threads *3 1/4"* No. of threads per inch *6* Area supported by each stay *441 LBS.*

Working pressure by Rules *183 LBS.* Screw stays: Material *STEEL* Tensile strength *26-30 TONS.*

Diameter {At turned off part, *—* or *—* Over threads *1 5/8"* No. of threads per inch *9* Area supported by each stay *72.18*



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Working pressure by Rules 211 LBS. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part. 1 3/4" or 2" Over threads 1 3/4" 2"

No. of threads per inch 9 Area supported by each stay 99 AND 123.75 Working pressure by Rules 183 LBS. 201 LBS.

Tubes: Material W. IRON External diameter { Plain 2 1/2" Thickness 9 L.S.G. No. of threads per inch 9 Stay 2 1/2" 7/8" - 3/8" - 5/16"

Pitch of tubes 3 3/4" X 3 3/4" Working pressure by Rules 230 LBS Manhole compensation: Size of opening in shell plate 20" X 16" Section of compensating ring 2' 11 1/2", 2' 8" X 1 1/4" No. of rivets and diameter of rivet holes 40 @ 1 1/4"

Outer row rivet pitch at ends 8 1/16" Depth of flange if manhole flanged 4 1/2" 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 ✓ 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 YES

The foregoing is a correct description of the boiler and superheater. Yes.
James Shipbuilding & Iron Co., Ltd. Manufacturer.
Manager, Engine Works
 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes.
 Total No. of visits 1

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special Survey, the materials and workmanship are good.

Survey Fee £ See Inquiry Report When applied for, 192
 Travelling Expenses (if any) £ See Inquiry Report When received, 192

Thomas Napier
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 19 OCT 1928
 Assigned See Inq. rpt. attached