

# REPORT ON BOILERS.

No. 14066

Received at London Office.

Date of writing Report 19... When handed in at Local Office 14/11/1945 Port of Belfast

No. in Reg. Book. Survey held at... Date, First Survey... Last Survey 19...

on the S.S. "EMPIRE TESELLA" (Number of Visits... Tons Gross 980 Net 340

Master... Built at Glasgow By whom built Harland & Wolff Ltd. Yard No. 1318 When built 1945

Engines made at Belfast By whom made Harland & Wolff Ltd. Engine No. 1318 When made 1945

Boilers made at Belfast By whom made Harland & Wolff Ltd. Boiler No. 1318 When made 1945

Nominal Horse Power... Owners The Admiralty, M.V. Port belonging to Glasgow

## MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd. (Letter for Record S)

Total Heating Surface of Boilers 2 x 1185 ft<sup>2</sup> Is forced draught fitted yes Coal or Oil fired oil

No. and Description of Boilers 2 Cylindrical multitubular Working Pressure 200 lb/0"

Tested by hydraulic pressure to 350 lb/0" Date of test 12/10/45 No. of Certificate 1289 Can each boiler be worked separately yes

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 of 1 3/4" Double Spring I.H.L. each

Area of each set of valves per boiler per Rule 3.44 lb as fitted 4.8 lb Pressure to which they are adjusted 200 lb 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 well clear Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating 24" Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 10-7 3/32" Length 10'-9" Shell plates: Material Steel Tensile strength 29/33 T/0"

Thickness 61/64" Are the shell plates welded or flanged No Description of riveting: circ. seams end D.R. Lap

long. seams T.R.D.B.S. Diameter of rivet holes in circ. seams 1 3/32" long. seams 1 3/32" Pitch of rivets 3.047" 7 5/16"

Percentage of strength of circ. end seams plate 64.3 rivets 51.5 Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 85.0 rivets 100.3 combined 90.0 Working pressure of shell by Rules 201 lb/0"

Thickness of butt straps outer 3/4" inner 7/8" No. and Description of Furnaces in each Boiler 2 Corrugated "Deighton"

Material Steel Tensile strength 26/30 T/0" Smallest outside diameter 2'-11 1/4"

Length of plain part top bottom Thickness of plates crown 1/2" bottom Description of longitudinal joint Fire weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules as approved

End plates in steam space: Material Steel Tensile strength 26/30 T/0" Thickness 1" Pitch of stays Various

How are stays secured Nuts & washers in & out Working pressure by Rules as approved

Tube plates: Material front Steel back Steel Tensile strength 26/30 T/0" Thickness 25/32"

Mean pitch of stay tubes in nests 9 13/32" Pitch across wide water spaces 14" Working pressure front as approved back

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 T/0" Depth and thickness of girder

at centre 8" x 2 x 7/8" Length as per Rule 29 3/32" Distance apart 10 1/2" No. and pitch of stays

in each 2 @ 9 3/8" Working pressure by Rules as approved Combustion chamber plates: Material Steel

Tensile strength 26/30 T/0" Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 3/4"

Pitch of stays to ditto: Sides 10 1/2" x 9 3/8" Back 10 1/4" x 9 1/2" Top 10 1/2" x 9 3/8" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules as approved Front plate at bottom: Material Steel Tensile strength 26/30 T/0"

Thickness 1" Lower back plate: Material Steel Tensile strength 26/30 T/0" Thickness 1"

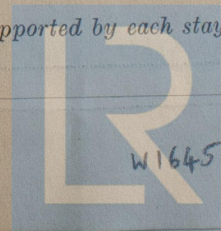
Pitch of stays at wide water space 15" x 9 1/2" Are stays fitted with nuts or riveted over Nuts

Working pressure as approved Main stays: Material Steel Tensile strength 28/32 T/0"

Diameter At body of stay 2 3/4" No. of threads per inch 6 Area supported by each stay

Over threads Working pressure by Rules as approved Screw stays: Material Steel Tensile strength 26/30 T/0"

Diameter At turned off part 1 7/8" No. of threads per inch 9 Area supported by each stay



© 2021

W1645-0018

Lloyd's Register Foundation



Working pressure by Rules *As app.* Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part... *2" & 2 1/8"* Over threads... *2" & 2 1/8"*  
No. of threads per inch *9* Area supported by each stay *-* Working pressure by Rules *As approved*  
Tubes: Material *Steel* External diameter { Plain *3"* Stay *3"* Thickness *8 W.G. 1/4" 5/16" 3/8"* No. of threads per inch *9*  
Pitch of tubes *4 1/4" x 4 1/8"* Working pressure by Rules *As approved* Manhole compensation: Size of opening  
shell plate *16 1/2" x 12 1/2"* Section of compensating ring *19 1/2" x 13/16"* No. of rivets and diameter of rivet holes *28 @ 1 9/32"*  
Outer row rivet pitch at ends *9"* Depth of flange if manhole flanged *3 1/2" bottom* 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  
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 forgings 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 forgings and castings and after assembly in place Are drain cocks  
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,

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 on board { During erection on board vessel - - - Total No. of visits

Is this Boiler a duplicate of a previous case *yes* If so, state Vessel's name and Report No. *Yard No. 13174*

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

*These boilers have been constructed under Special Survey in accordance with the Rules and Approved plan.*

*The materials and workmanship are good.*

*The boilers have been shipped to Glasgow for fitting on board the vessel.*

*These boilers have been satisfactorily fitted on board the vessel and the safety valves adjusted under steam to 200 lbs per sq inch and found satisfactory. Safety valves compression washer sizes Port Boiler P. 3/8" S. 23/64" Starboard P. 1/32" S. 1/32" G. & C. Murdoch Glasgow*

Survey Fee *2/5 of £45* £ *18* : - : -  
(Class + 25%)  
Travelling Expenses (if any) £ : : :

When applied for *14/11/45*  
When received *19/11/45*

*John McAfee*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 19 FEB 1946*

Assigned *SEE ACCOMPANYING MACHINERY REPORT*



© 2021

Lloyd's Register  
Foundation