

## REPORT ON BOILERS.

No. 2015. 23 JAN 1961

115 MAR 1960

Received at London Office.....

Date of writing Report... 2.3.1960. When handed in at Local Office... 8.3.1960. Port of... Fremantle, W.A.

No. in Reg. Book... Survey held at... Fremantle, W.A. Date, First Survey... 12th January '59 Last Survey... 29th February 1960.

(Number of Visits... 14.....)

Tons

{ Gross.....

{ Net.....

on the... B.P. SYDNEY

Built at... By whom built... Yard No. 2 When built...

Engines made at... By whom made... Engine No. When made...

Boilers made at... Perth, W.A. By whom made... Tomlinson Steel Limited. Boiler No. 719A When made... Feb 1960.

MN as per Rule... Owners... Port belonging to...

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel... Australian Iron &amp; Steel, Port Kembla, N.S.W.

Total Heating Surface of Boilers... 544.78 sq. ft. Of Superheaters...

Total for Register Book... 544.78 sq. ft. Is forced draught fitted... Yes. Coal or Oil fired... Oil.

No. and Description of Boilers... One Cylindrical Multitubular fusion welded. Working Pressure... 150 p.s.i.

Tested by hydraulic pressure to... 275 p.s.i. Date of test... 4-2-60. No. of Certificate... 719A. Can each boiler be worked separately... One Only.

Area of Firegrate in each Boiler... No. and Description of safety valves to each boiler... 2 only 2" ordinary high lift.

Area of each set of valves per boiler... { per Rule... 4.34 sq. inches Pressure to which they are adjusted... 150 p.s.i. 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... Is oil fuel carried in the double bottom under boilers...

Smallest distance between boilers or uptakes and bunkers or woodwork... Is the bottom of the boiler insulated...

Largest internal dia. of boilers... 66" Length... 9' 5" Shell plates: Material... A.S. B58 grade A Tensile strength... 27.2 Min.

If fusion welded, state name of welding Firm... Tomlinson Steel Limited. Have all the requirements of the Rules for Class I vessels...

been complied with... Yes. Thickness... 7/16" Are the shell plates welded or flanged... welded Description of riveting: circ. seams { end.....

long. seams... Diameter of rivet holes in { circ. seams... Pitch of rivets {

Percentage of strength of circ. end seams { plate... rivets... Percentage of strength of circ. intermediate seam { plate... rivets...

Percentage of strength of longitudinal joint { plate... rivets... combined...

Thickness of butt straps { outer... inner... No. and Description of Furnaces in each Boiler... One plain

Material... A.S. B 58 Grade C Tensile strength... 24 UTS Tensile strength... 24 UTS Smallest outside diameter... 24"

Length of plain part { top... 9.35" bottom... 9.35" Thickness of plates... 1/2" Description of longitudinal joint... Butt welded.

Dimensions of stiffening rings on furnace or c.c. bottom... 3 rings 2" x 1/2"

End plates in steam space: Material... AS B 58 grade C Tensile strength... 26 UTS Thickness... 11/16" Pitch of gussets... 10.54"

How are gussets secured... Welded.

Tube plates: Material { front... AS B 58 Grade C Tensile strength { 26 UTS Thickness { 11/16" back... AS B 58 Grade C Tensile strength { 26 UTS Thickness { 11/16"

Mean pitch of stay tubes in nests... 13.75" max. Pitch across wide water spaces... 12.5" x 6.0"

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... 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...

Front plate at bottom: Material... AS B 58 Grade C Tensile strength... 26 UTS

Thickness... 11/16" Lower back plate: Material... AS B 58 grade C Tensile strength... 26 UTS Thickness... 11/16"

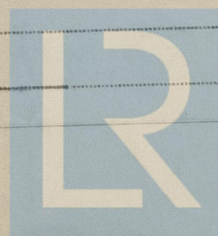
Pitch of stays at wide water space... Are stays fitted with nuts or riveted over...

Main stays: Material... Tensile strength...

Diameter { At body of stay... No. of threads per inch... or Over threads...

Screw stays: Material... Tensile strength...

Diameter { At turned off part... No. of threads per inch... or Over threads...



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Are the stays drilled at the outer ends..... Margin stays: Diameter { At turned off part..... or Over threads.....

No. of threads per inch.....

Tubes: Material ASB 102. External diameter { Plain 2.5" Stay 2.5" Thickness { 10 gauges. 1" thick. No. of threads per inch welded stay t

Pitch of tubes 3.4375" horizontal 2.977 vertical. Manhole compensation: Size of opening in shell plate 19 5/8" x 11 13/16" Section of compensating ring 3.6 sq. ins. No. of rivets and diameter of rivet holes welded.

Outer row rivet pitch at ends..... Depth of flange if manhole flanged 3 9/16" 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..... Thickness of crown..... No. and diameter of stays..... Inner radius of crown.....

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.....

Pressure to which the safety valves are adjusted..... Hydraulic test pressure: tubes..... forgings and 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,  
J. A. Doney. Manufacturer.

Dates of Survey while building { During progress of work in shops - - 4th Jan. to 29th Feb' 1960. Are the approved plans of boiler and superheater forwarded herewith 30th Dec' 59 (If not state date of approval.)

{ During erection on board vessel - - - Not Installed. Total No. of visits 14

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has in my opinion been constructed in accordance with plans A 1003/101 & 106 and 1004/101 and Secretary's letters. Material are considered to be good and workmanship satisfactory and in my opinion this boiler is fit for installation in a vessel classed with this Society and have notation of DB with date when the installation has been completed.

For identification purposes this boiler has been marked:-

No. 749A  
Lloyds Test  
Fre  
T.P. 275 W.P. 150 p.s.i.  
HG 29-2-60.

Survey Fee ... £ 130 : - : - When applied for.....19.....  
Travelling Expenses (if any) £ 22 : 19 : - When received.....19.....

H. B. Glatte.  
(Sgd.) H. B. Glatte.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... FRIDAY 24 MAR 1961

Assigned..... See Rpt. 1.