

Std. Rpt. 25689

Rpt. 5a.

# REPORT ON BOILERS.

No. 7865

WED. APR. 16. 1913

Received at London Office

Date of writing Report 16.4.13 When handed in at Local Office 15.4.13 Port of MIDDLESBROUGH-ON-TEES  
 No. in Survey held at Stockton-on-Tees Date, First Survey 12th Feb Last Survey April 10th 1913  
 Reg. Book. on the Steel Single Screw Steamer North Pacific (S.S. No. 497) Tons 2497 Gross 2931 Net 2497  
 Master Goodwin Built at Sunderland By whom built J. L. Thompson & Sons When built 1913  
 Engines made at Sunderland By whom made J. Dickinson & Son Ltd When made 1913  
 Boilers made at Stockton By whom made Messrs Riley Bros Ltd (No. 4523) When made 1913  
 Registered Horse Power \_\_\_\_\_ Owners Pacific Shipping Co., Ltd. Port belonging to Sunderland

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spencer & Sons

(Letter for record (R)) Total Heating Surface of Boilers 940 sq ft Is forced draft fitted No No. and Description of Boilers One single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 10.4.13

No. of Certificate 5053 Can each boiler be worked separately Yes Area of fire grate in each boiler 28.8 sq ft No. and Description of safety valves to each boiler 2 Spring Area of each valve 2 dia Pressure to which they are adjusted 183 lbs

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers or uptakes and bunkers or woodwork 15" Inside dia. of boilers 10'-0" Length 10'-0"

Material of shell plates steel Thickness 27/32" Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams 2-R. lap long. seams 2B-3 Riv Diameter of rivet holes in long. seams 15/16" Pitch of rivets 7"

Lap of plates or width of butt straps 13 1/2" x 27/32" Per centages of strength of longitudinal joint rivets 87.1 Working pressure of shell by rules 182 Size of manhole in shell 19" x 15" Size of compensating ring 7 x 1" No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 36" Length of plain part top 77" Thickness of plates crown 27/32" bottom 1/2"

Description of longitudinal joint Weld No. of strengthening rings none Working pressure of furnace by the rules 192 Combustion chamber plates: Material steel Thickness: Sides 21/32" Back 5/8" Top 21/32" Bottom 1" Pitch of stays to ditto: Sides 10 1/2 x 7 Back 8 x 8 1/2

Top 10 1/2 x 7 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 188 Material of stays iron Diameter at smallest part 2.03 Area supported by each stay 73.5 Working pressure by rules 208 End plates in steam space: Material steel Thickness 1 1/2"

Pitch of stays see plan How are stays secured nuts & washers Working pressure by rules 180 Material of stays steel Diameter at smallest part 5.05

Area supported by each stay 262.5 Working pressure by rules 208 Material of Front plates at bottom steel Thickness 1 1/2" Material of Lower back plate steel Thickness 1 1/2" Greatest pitch of stays 14 x 8 1/2" Working pressure of plate by rules 286 Diameter of tubes 3 1/4"

Pitch of tubes 4 3/8" x 4 1/4" Material of tube plates steel Thickness: Front 1 1/2" Back 3/4" Mean pitch of stays 9 7/8" Pitch across wide water spaces 14" Working pressures by rules 208 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8 x 1 1/2" Length as per rule 27 Distance apart 10 1/2" Number and pitch of Stays in each 2 @ 7"

Working pressure by rules 180 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately \_\_\_\_\_ Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet \_\_\_\_\_

holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_

If stiffened with rings \_\_\_\_\_ Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

Working pressure of end plates \_\_\_\_\_ Area of safety valves to superheater \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

FOR THE FOREGOING IS A CORRECT DESCRIPTION,  
A. Rudd Manufacturer.

Dates of Survey 1913 During progress of work in shops - Feb 12-18-21 Max 12-14-17-28 Apr 2-7-8-10 Is the approved plan of boiler forwarded herewith yes  
 while building Apr 29-May 1-5 Total No. of visits 14

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results  
This boiler has been securely fitted in place and its safety valves adjusted as above. J. J. Hindley

Survey Fee ... £ 3-3-9 When applied for, ... 191  
 Travelling Expenses (if any) £ : : When received, ... 191

Wm Morrison & Shephard  
Engineer Surveyors to Lloyd's Register of British and Foreign Shipping.

FRI. MAY 23. 1913

Committee's Minute  
Assigned see minute on Std R. R. W



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