

# REPORT ON BOILERS.

Received at London Office FRI. MAR. 22. 1912

Date of writing Report 22<sup>nd</sup> Dec. 1911 When handed in at Local Office 1911 Port of Newcastle

No. in Survey held at Hebburn Date, First Survey 6<sup>th</sup> Oct. 1911 Last Survey 20<sup>th</sup> March 1912

Reg. Book. 49 on the S Lug Dreadful (Number of Visits) 253

Master L Shields Built at L Shields By whom built Hepple & Co Ltd When built 1912

Engines made at L Shields By whom made J P Palmer & Co Ltd When made 1912

Boilers made at Hebburn By whom made Palmer Coy No. 694 When made 1912

Registered Horse Power \_\_\_\_\_ Owners Canadian Western Lumber Co Port belonging to British

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

(Letter for record S) Total Heating Surface of Boilers 1970 sq Is forced draft fitted no No. and Description of Boilers One, single-ended Working Pressure 160 lbs Tested by hydraulic pressure to 360 lbs Date of test 21-12-11

No. of Certificate 8253 Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler 63 sq No. and Description of safety valves to each boiler \_\_\_\_\_ Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_

Are they fitted with easing gear \_\_\_\_\_ 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 \_\_\_\_\_ Mean dia. of boilers 15'-0" Length 12'-0"

Material of shell plates Steel Thickness 1 1/4" Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams S. Lap long. seams SBS. T. Rivd. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/2"

Lap of plates or width of butt straps 18 7/8" Per centages of strength of longitudinal joint \_\_\_\_\_ rivets 86 Working pressure of shell by rules 187 lbs Size of manhole in shell 16" x 12" Size of compensating ring McNeil plate 85.29

boiler 3-motions Material Steel Outside diameter 45 3/4" Length of plain part \_\_\_\_\_ Thickness of plates 9 1/16"

Description of longitudinal joint Welded No. of strengthening rings \_\_\_\_\_ Working pressure of furnace by the rules 192 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 2 1/32" Top 5/8" Bottom 1" Pitch of stays to ditto: Sides 8 5/8" x 8 1/2" Back 9 1/2" x 8 1/2"

Top 8 5/8" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 183 lbs Material of stays Steel Diameter at smallest part 1.73" Area supported by each stay 73.3 sq Working pressure by rules 188 lbs End plates in steam space: Material Steel Thickness 1 7/16"

Pitch of stays 18" x 16" How are stays secured S. N. W. Working pressure by rules 184 lbs Material of stays Steel Diameter at smallest part 5.05"

Area supported by each stay 288 sq Working pressure by rules 182 lbs Material of Front plates at bottom Steel Thickness 15/16" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 240 lbs Diameter of tubes 3 1/2"

Pitch of tubes 4 3/4" x 4 3/4" Material of tube plates Steel Thickness: Front 17/16" Back 13/16" Mean pitch of stays 10 11/16" Pitch across wide water spaces 14 1/2" Working pressures by rules 192 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 3/4" x 2" Length as per rule 39.38 Distance apart 8 1/2" Number and pitch of Stays in each 3-8 5/8"

Working pressure by rules 200 lbs 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 \_\_\_\_\_

The foregoing is a correct description,  
For Palmer's Shipbuilding & Iron Co. J. Cameron Manufacturer.

Dates of Survey: During progress of work in shops - - - Oct. 6, 18, 25, 30 Nov. 7, 13, 17, 22, 23, Dec. 5, 14, 19, 21 Is the approved plan of boiler forwarded herewith yes

while building: During erection on board vessel - - - See Weekly Report Total No. of visits 13+

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This main boiler has been constructed under special survey & the materials and workmanship are found to be good.

Survey Fee ... £ machinery When applied for, ..... 191

Travelling Expenses (if any) £ repairs : When received, ..... 191

Thomas Field  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUE. MAR. 26. 1912

Assigned

