

Rpt. 5a.

REPORT ON BOILERS.

No. 73820

Date of writing Report

191

When handed in at Local Office

191

Port of Newcastle on Tyne

Received at London Office

1911-12 1920

No. in
Reg. Book.Survey held at *Hebburn on Tyne*Date, First Survey *2nd Mar 1920* Last Survey *22 July* 191 *20*

(Number of Visits)

Gross
Tons
Net

Master

Built at *South Shields*By whom built *Hepples (1919) Ltd 658*When built *1920*Engines made at *North Shields*By whom made *Shields Engineering Coy Ltd Engine 362* When made *1920*Boilers made at *Hebburn*By whom made *Palmer's S & J Coy Ltd 978 Boilers* When made *1920*

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Spencers & Sons Ltd*(Letter for record *S*)Total Heating Surface of Boilers *1120⁵*

Is forced draft fitted

No. and Description of

Boilers *One S. & J. Cyl. multitubular* Working Pressure *130¹/₂ lbs* Tested by hydraulic pressure to *260¹/₂ lbs* Date of test *22-7-20*No. of Certificate *9438* Can each boiler be worked separately ☒ Area of fire grate in each boiler *35⁰/₄ sq ft* No. and Description ofsafety valves to each boiler *two direct spring* Area of each valve *6⁰/₄ sq in* Pressure to which they are adjustedAre they fitted with easing gear ☒ In case of donkey boilers, state whether steam from main boilers can enter the donkey boilerSmallest distance between boilers or uptakes and bunkers or woodwork *inside dia* Mean dia. of boilers *12'-0"* Length *10'-0"*Material of shell plates *Steel* Thickness *13¹/₁₆"* Range of tensile strength *28/32* Are the shell plates welded or flanged *no*Descrip. of riveting: cir. seams *D R Lap* long. seams *T. R. & B. Skt* Diameter of rivet holes in long. seams *1"* Pitch of rivets *5¹/₄"*Lap of plates or width of butt straps *1'-3¹/₂"* Per centages of strength of longitudinal joint *82-5%* Working pressure of shell by rules *136 lbs* Size of manhole in shell *16 x 12* Size of compensating ring *7 x 13/16* No. and Description of Furnaces in eachboiler *two plain* Material *Steel* Outside diameter *3'-7³/₈"* Length of plain part *6'-0"* Thickness of plates *3¹/₄"* bottom *6-7*Description of longitudinal joint *weld* No. of strengthening rings *19* Working pressure of furnace by the rules *167 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *19/32* Back *9/16* Top *19/32* Bottom *13/16* Pitch of stays to ditto: Sides *9¹/₂ x 8¹/₂* Back *9 x 9*Top *9¹/₂ x 8¹/₂* stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *135 lbs* Material of stays *Steel* Area at smallest part *1-45⁰/₄ sq in* Area supported by each stay *81⁰/₄ sq in* Working pressure by rules *143 lbs* End plates in steam space: Material *Steel* Thickness *7/8"*Pitch of stays *16¹/₂ x 16¹/₂* How are stays secured *by nuts* Working pressure by rules *132 lbs* Material of stays *Steel* Area at smallest part *4.11*Area supported by each stay *272.25 sq in* Working pressure by rules *156 lbs* Material of Front plates at bottom *Steel* Thickness *2¹/₂"* Material of Lower back plate *Steel* Thickness *3¹/₂"* Greatest pitch of stays *3 x 9* Working pressure of plate by rules *130 lbs* Diameter of tubes *3¹/₂"*Pitch of tubes *4¹/₈ x 4³/₄* Material of tube plates *Steel* Thickness: Front *2¹/₂"* Back *3/4"* Mean pitch of stays *4¹/₈ x 9¹/₂* Pitch across wide water spaces *14"* Working pressures by rules *131 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness ofgirder at centre *8¹/₂ x 13¹/₈* Length as per rule *2'-7"* Distance apart *9¹/₂"* Number and pitch of Stays in each *two x 8¹/₂ pitch*Working pressure by rules *165 lbs* Steam dome: description of joint to shell *none* % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER.

Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

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

Dates

During progress of

1920 Mar 2 Apr 17 May 10 31. Jul 9 20 22

of Survey

while

During erection on

building

board vessel

Is the approved plan of boiler forwarded herewith *yes*Total No. of visits *87*

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

*The Boilers built under Special Survey the material and workmanship found good and efficient**The Boilers was tested under 260 lbs hydraulic pressure at the makers works & found satisfactory*

Boiler fee only

Survey Fee ... £ *3 : 15 :*When applied for, *16 AUG 1920*

Travelling Expenses (if any) £

When received, *27 Sept 1920 HPA*

Committee's Minute

TUE 5 APR. 1921

Assigned

Leonard Shillington
Engineer Surveyor to Lloyd's Register of Shipping.Lloyd's Register
W1072-0266
W1070-0266