

REPORT ON BOILERS.

No. 28078.

Received at London Office

THU. NOV. 19. 1914

Date of writing Report 4th Nov 1914 When handed in at Local Office

14. 11 1914 Port of Hull

No. in Survey held at Hull

Date, First Survey 28-9-14

Last Survey 14-11-14

191

Reg. Book.

634 on the new main boiler for S.S. Hercules (11124)

(Number of Visits 20)

Gross 261

Tons Net 103

Master

Built at Beverley

By whom built Cook, Wilton & Gemmell

When built 1903-10

Engines made at Hull

By whom made C. D. Holmes & Co. Ltd

When made 1903-10

Boilers made at Hull

By whom made C. D. Holmes & Co. Ltd

When made 1914-10

Registered Horse Power 70

Owners J. A. Robertson & Co

Port belonging to Fleetwood

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Stewarts & Lloyds

Letter for record S

Total Heating Surface of Boilers 1240^{sq}

Is forced draft fitted no

No. and Description of

Boilers one single ended

Working Pressure 200 lbs

Tested by hydraulic pressure to 400 lbs

Date of test 30-10-14

No. of Certificate 3033

Can each boiler be worked separately ✓

Area of fire grate in each boiler 45^{sq}

No. and Description of

Safety valves to each boiler two spring loaded

Area of each valve 4.90^{sq}

Pressure to which they are adjusted 205 lbs

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 6"

Dia. of boilers 156 7/16"

Length 10'-3"

Material of shell plates steel

Thickness 1 5/32"

Range of tensile strength 29-33 tons

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams double

long. seams J. P. & B. J.

Diameter of rivet holes in long. seams 1 5/32"

Pitch of rivets 7 3/4"

Top of plates or width of butt straps 18"

Per centages of strength of longitudinal joint

rivets 87.3

Working pressure of shell by

rules 204

Size of manhole in shell 12" x 16"

Size of compensating ring 7" x 1 5/32"

No. and Description of Furnaces in each

boiler three plain

Material steel

Outside diameter 37 7/32"

Length of plain part

top 76 1/2"

Thickness of plates

crown 3 49/64"

Description of longitudinal joint welded

No. of strengthening rings ✓

Working pressure of furnace by the rules 204

Combustion chamber

plates: Material steel

Thickness: Sides 23/32"

Back 3/4"

Top 1 1/16"

Bottom 23/32"

Pitch of stays to ditto: Sides 10" x 8 3/4" Back 9 3/4" x 9 1/2"

Top 10" x 8" If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 202

Material of stays steel

Diameter at

smallest part 2' 07"

Area supported by each stay 92.6^{sq}

Working pressure by rules 201

End plates in steam space: Material steel

Thickness 1 5/32"

Pitch of stays 17 1/2" x 17 1/2"

How are stays secured J. P. & B. J.

Working pressure by rules 206

Material of stays steel

Diameter at

smallest part 6' 33"

Area supported by each stay 306^{sq}

Working pressure by rules 215

Material of Front plates at bottom steel

Thickness 29/32"

Material of

Lower back plate steel

Thickness 15/16"

Greatest pitch of stays 14 1/2" x 8 3/4"

Working pressure of plate by rules 214

Diameter of tubes 3 1/2"

Pitch of tubes 5 1/4" x 5"

Material of tube plates S

Thickness: Front 29/32"

Back 7/8"

Mean pitch of stays 10 1/4"

Pitch across wide

water spaces 14"

Working pressures by rules 261 lbs

Girders to Chamber tops: Material steel

Depth and thickness of

rider at centre 10" x 1.75"

Length as per rule 34 5/8"

Distance apart 10"

Number and pitch of Stays in each three 8"

Working pressure by rules 202

Superheater or Steam chest: how connected to boiler ✓

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,

J. Arthur Holmes

Manufacturer.

Dates of Survey During progress of 1914: Sep 28 Oct 1. 6. 16 20. 23. 26. 28. 30.

Is the approved plan of boiler forwarded herewith yes

while building During erection on Oct 17. 19. 22 Nov 5. 6. 7. 9. 10. 11. 13. 14

Total No. of visits 20

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

This boiler has been constructed under special survey in accordance with the approved plan & the rules of this society, the materials & workmanship are good, on completion it was tested by hyd pressure to 400 lbs & found sound & good. The boiler has been properly fitted & secured on board, the vessel's safety valves adjusted under steam. In our opinion the vessel is eligible for the record & NB 11, 14.

Survey Fee ...

£ 4 : 3 : :

When applied for, 18-11-1914

Travelling Expenses (if any) £ :

When received, 30-11-1914

Frank A. Sturgeon & W. H. Roberts
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

FRI. NOV. 20. 1914

Committee's Minute

Assigned

W486-0023



Lloyd's Register
Foundation