

Rpt. 5a.

REPORT ON BOILERS.

No. 38779.

Date of writing Report 14.3.1928 When handed in at Local Office March 14 1928 Port of

Received at London Office 20 MAR 1928

HULL.

No. in Reg. Book 11408

Survey held at

Hull

Date, First Survey

16 Dec 27

Last Survey

17 March 1928

(Number of Visits 16)

Gross 352
Tons Net 146

Master

Built at

Bursley

By whom built

Cook, Nelson & Gummery Co.

Yard No. 493

When built 1928

Engines made at

Hull

By whom made

Charles D. Holmes & Co. Ltd

Engine No. 1323

When made 1928

Boilers made at

Hull

By whom made

do

Boiler No. 1323

When made 1928

Nominal Horse Power

96

Owners

Kempson Steam Trawling Co. Ltd

Port belonging to

Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Veriniffr Stahwerke AG. Schwer.

(Letter for Record S.)

Total Heating Surface of Boilers

1698 Sq. ft

Is forced draught fitted

ho

Coal or Oil fired

Coal

No. and Description of Boilers

One single ended

Working Pressure

200 lbs.

Tested by hydraulic pressure to

350 lbs.

Date of test

22/2/28

No. of Certificate

3633

Can each boiler be worked separately

Area of Firegrate in each Boiler

49.2 sq. ft

No. and Description of safety valves to each boiler

2 Spring loaded

Area of each set of valves per boiler

per Rule 4.9 sq. ft

as fitted 4.9 sq. ft

Pressure to which they are adjusted

200 lbs.

Are they fitted with easing gear

Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

7"

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

14'-0"

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

28/32 Tons

Thickness

1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

long. seams

T.R. S.B.S.

Diameter of rivet holes in

circ. seams 1/2"

long. seams 3/32"

Pitch of rivets

3/4"

Percentage of strength of circ. end seams

plate 65.8

rivets 51.2

Percentage of strength of circ. intermediate seam

plate 88.03

rivets 90.8

combined 88.8

Percentage of strength of longitudinal joint

plate 90.8

rivets 88.8

Working pressure of shell by Rules

201 lbs.

Thickness of butt straps

outer 1"

inner 1/2"

No. and Description of Furnaces in each Boiler

Steam plain

Material

Steel

Tensile strength

28/30 Tons

Smallest outside diameter

41"

Length of plain part

top 76"

bottom 69"

Thickness of plates

crown 13/16"

bottom 1/2"

Description of longitudinal joint

Welded

Dimensions of stiffening rings on furnace or c.c. bottom

Yes

Working pressure of furnace by Rules

219 lbs.

End plates in steam space: Material

Steel

Tensile strength

28/30 Tons

Thickness

13/16"

Pitch of stays

18"

How are stays secured

S.N. & W.

Working pressure by Rules

220 lbs.

Tube plates: Material

front Steel

back Steel

Tensile strength

28/30 Tons

Thickness

15/16"

7/8"

Mean pitch of stay tubes in nests

10.97"

Pitch across wide water spaces

13 3/4"

Working pressure

front 211

back 230

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 Tons

Depth and thickness of girder

at centre

10 3/4" x 13 1/4"

Length as per Rule

36 3/16"

Distance apart

9"

No. and pitch of stays

in each

3 @ 8 3/4"

Working pressure by Rules

210 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

28/30 Tons

Thickness: Sides

3/4"

Back

23/32"

Top

3/4" x 23/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

9 x 8 3/4"

Back

9 x 8 3/2"

Top

9 x 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

230 lbs.

Front plate at bottom: Material

Steel

Tensile strength

28/30 Tons

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

28/30 Tons

Thickness

19/32"

Pitch of stays at wide water space

14" x 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

228 lbs.

Main stays: Material

Steel

Tensile strength

28/32 Tons

Diameter

At body of stay 3/4"

Over threads 240 lbs.

No. of threads per inch

8

Area supported by each stay

324 sq. in.

Working pressure by Rules

240 lbs.

Screw stays: Material

Steel

Tensile strength

28/30 Tons

Diameter

At turned off part 17/8"

Over threads 13/4"

No. of threads per inch

10

Area supported by each stay

789

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Working pressure by Rules 230 Are the stays drilled at the outer ends ☒ Margin stays: Diameter ^{At turned off part.} 1 7/8 or ^{Over threads} 2 1/8

No. of threads per inch 10 Area supported by each stay 3 1/2 Working pressure by Rules 218

Tubes: Material Iron External diameter ^{Plain} 3 1/2 Thickness ^{Stay} 3/16 No. of threads per inch 9

Pitch of tubes 4 7/8 Working pressure by Rules 215 Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 4 x 27 x 1 3/4 No. of rivets and diameter of rivet holes 32 @ 1 1/4"

Outer row rivet pitch at ends 8 3/16 Depth of flange if manhole flanged ☒ Steam Dome: Material Iron

Tensile strength 2200 Thickness of shell 1/2 Description of longitudinal joint Butt

Diameter of rivet holes 3/8 Pitch of rivets 2 1/2 Percentage of strength of joint 85

Internal diameter 24 Working pressure by Rules 215 Thickness of crown 1/2 No. and diameter of stays 12 @ 1 1/4"

How connected to shell By doubler plate Inner radius of crown 12 Working pressure by Rules 215

Size of doubling plate under dome 16" x 12" Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 32 @ 1 1/4"

Type of Superheater

Manufacturers of ^{Tubes} Charles D. Holmes & Co. Ltd. ^{Steel castings} Charles D. Holmes & Co. Ltd.

Number of elements 1 Material of tubes Iron Internal diameter and thickness of tubes 3 1/2" x 3/16"

Material of headers Iron Tensile strength 2200 Thickness 1/2 Can the superheater be shut off and the boiler be worked separately Yes

Area of each safety valve 1 1/2 Are the safety valves fitted with easing gear Yes Working pressure as per Rules 218

Pressure to which the safety valves are adjusted 218 Hydraulic test pressure: 250

tubes Castings and after assembly in place 218 Are drain cocks or valves fitted to free the superheater from water where necessary Yes

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,

Charles D. Holmes & Co. Ltd. Manufacturer.

Dates of Survey ^{During progress of work in shops - -} See attached Report on Machine

^{while building} ^{During erection on board vessel - -} See attached Report on Machine

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes

Total No. of visits 1

GENERAL REMARKS

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

This boiler has been built under special survey & in accordance with the approved plan. The materials & workmanship are sound & good. The boiler has been satisfactorily fitted on board, tried under working conditions, & its safety valves adjusted as above.

Chapman Engine report, sent herewith.

Survey Fee £ 100

Travelling Expenses (if any) £ 0

When applied for, 192

When received, 192

John Shackleton
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute See Rpt. attached

Assigned See Rpt. attached

FRI. 23 MAR 1922



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