

REPORT ON BOILERS.

No. 17900

Received at London Office

Date of writing Report 18-10-1920 When handed in at Local Office

192

Port of

Rotterdam

No. in Reg. Book.

Survey held at Rotterdam

Date, First Survey

20-11-20

Last Survey

9-10-1920

(Number of Visits 15)

Gross 315.52

Net 143.48

on the steel screw trawler "PESCADOR PRIMEIRO"

Master

Built at

Rotterdam

By whom built

Wiltons Eng. Shipway

Yard No.

209

When built

1920-21

Engines made at

Rotterdam

By whom made

do

Engine No.

421

When made

1920-21

Boilers made at

do

By whom made

do

Boiler No.

725

When made

1920-21

Nominal Horse Power

96

Owners Sociedad de Pesca d'Arresto Lda

Port belonging to

Lisboa

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY, OR DONKEY~~

Manufacturers of Steel

David Colville & Sons Ltd. Motherwell.

(Letter for Record

S.

Total Heating Surface of Boilers

1710 sq ft

Is forced draught fitted

no

Coal or Oil fired

Coal.

No. and Description of Boilers

one multitubular boiler. 15B

Working Pressure

190 lb

Tested by hydraulic pressure to

335 lb

Date of test

10-6-21

No. of Certificate

No 741

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

47.5 sq ft

No. and Description of safety valves to each boiler

two spring loaded

Area of each set of valves per boiler

per Rule

as fitted

2 x 10.35

Pressure to which they are adjusted

190 lb

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

over 6"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

no

Largest internal dia. of boilers

13'-6"

Length

10'-4"

Shell plates: Material

S.M. steel

Tensile strength

28-32 T

Thickness

1 1/32"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end 2 x riv.

long. seams

double butt strap 3 x riv.

Diameter of rivet holes in

circ. seams

1 3/16"

Pitch of rivets

3 1/8"

Percentage of strength of circ. end seams

plate 69.4%

rivets 54.5%

Percentage of strength of circ. intermediate seam

plate 69.4%

rivets 54.8%

Percentage of strength of longitudinal joint

plate 85%

rivets 86%

combined 86.5%

Working pressure of shell by Rules

201 lb

Thickness of butt straps

outer 1 1/8"

inner 1 1/32"

No. and Description of Furnaces in each Boiler

two morrisons 2 CF

Material

S.M. steel

Tensile strength

26-30 T

Smallest outside diameter

3'-11 1/16"

Length of plain part

top

bottom

Thickness of plates

crown 2 1/32"

bottom 1/32"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

202 lb

End plates in steam space: Material

S.M. steel

Tensile strength

26-30 T

Thickness

1 1/8"

Pitch of stays

19 1/4" x 19 1/4"

How are stays secured

screwed in plate, nut & washer outside

Working pressure by Rules

226 lb

Tube plates: Material

front } S.M. steel

back }

Tensile strength

26-30 T

Thickness

1 1/32"

Mean pitch of stay tubes in nests

11"

Pitch across wide water spaces

15 1/2"

Working pressure

front 321 lb

back 220 lb

Girders to combustion chamber tops: Material

S.M. steel

Tensile strength

20-32 T

Depth and thickness of girder

at centre

7 3/4" x 2 x 7/8"

Length as per Rule

29"

Distance apart

9 1/2"

No. and pitch of stays

in each

3 x 7 3/4"

Working pressure by Rules

230 lb

Combustion chamber plates: Material

S.M. steel

Tensile strength

26-30 T

Thickness: Sides

1/16"

Back

1/16"

Top

1/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

8" x 7 3/4"

Back

8 1/16" x 7 3/4"

Top

9 1/2" x 7 3/4"

Are stays fitted with nuts or riveted over

with nuts

Working pressure by Rules

264 lb

Front plate at bottom: Material

S.M. steel

Tensile strength

26-30 T

Thickness

1 1/32"

Lower back plate: Material

S.M. steel

Tensile strength

26-30 T

Thickness

13/16" + 9/16"

Pitch of stays at wide water space

16"

Are stays fitted with nuts or riveted over

nutted

Working Pressure

205 lb

Main stays: Material

S.M. steel

Tensile strength

28-32 T

Diameter

At body of stay,

3"

or

3 1/4" + 3 1/2"

No. of threads per inch

7

Area supported by each stay

19 1/4" x 19 1/4"

Working pressure by Rules

217 lb

Screw stays: Material

S.M. steel

Tensile strength

26-30 T

Diameter

At turned off part,

1 1/2"

or

1 1/2"

No. of threads per inch

10

Area supported by each stay

7 3/4" x 8 1/16"

Working pressure by Rules 201 1/4. Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 3/4" or Over threads 1 3/4"

No. of threads per inch 10 Area supported by each stay 12 1/2 x 7 3/4" Working pressure by Rules 195 1/4

Tubes: Material S.M. steel External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 1/8" 5/16" No. of threads per inch 9

Pitch of tubes 4 3/8" x 4 7/16" Working pressure by Rules ✓ Manhole compensation: Size of opening in shell plate 17" x 21" Section of compensating ring 2'-6" x 2'-10 1/2" x 1 3/16" No. of rivets and diameter of rivet holes 32 x 1 3/16"

Outer row rivet pitch at ends 7 7/8" Depth of flange if manhole flanged 3 7/8" Steam Dome: Material ✓

Tensile strength ✓ Thickness of shell ✓ Description of longitudinal joint ✓

Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint { Plate ✓ Rivets ✓

Internal diameter ✓ Working pressure by Rules ✓ Thickness of crown ✓ No. and diameter of stays ✓

How connected to shell ✓ Inner radius of crown ✓ Working pressure by Rules ✓

Size of doubling plate under dome ✓ Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell ✓

Type of Superheater ✓ Manufacturers of { Tubes ✓ Steel castings ✓

Number of elements ✓ Material of tubes ✓ Internal diameter and thickness of tubes ✓

Material of headers ✓ Tensile strength ✓ Thickness ✓ Can the superheater be shut off and the boiler be worked separately ✓

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓

Area of each safety valve ✓ Are the safety valves fitted with easing gear ✓ Working pressure as per Rules ✓

Pressure to which the safety valves are adjusted ✓ Hydraulic test pressure: tubes ✓, castings ✓ and after assembly in place ✓ Are drain cocks or valves fitted to free the superheater from water where necessary ✓

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

Wilton's Engineering & Slipway Co.

The foregoing is a correct description,

M. Wilton

Manufacturer.

Dates of Survey { During progress of work in shops - - 20/11-20 11/2-22/3-31/3-2/4 Are the approved plans of boiler and superheater forwarded herewith no (If not state date of approval.) 4-8-20

while building { During erection on board vessel - - - 19/4-27/4-31/5-10/6-21 25/7-21 4/9-6-10-24/9-9/10-21 Total No. of visits 15

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

This boiler has been made under special survey in accordance with the approved plan, Secretary's letters and the Society's Rules, tested by hydraulic pressure and found sound and tight.

Survey Fee £

Travelling Expenses (if any) £

Please see machinery report.

When applied for, 192

When received, 192

C.H. Bourne
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 6 NOV 1928

Assigned see Minute on Rot. Rpt
17900 attached



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