

pt. 5.

REPORT ON BOILERS.

Hpl. No. 13021
No. 4622

Port of MIDDLESBROUGH-ON-TEES.

Received at London Office

TUES. 24 JUL 1906

safety

No. in
Reg. Book.

Survey held at

Date, first Survey

January 24

Last Survey

19

29

on the Donkey Boiler No 2069 for S. S. Ada

(Number of Visits)

Gross
Tons
Net

Master

Built at Hastings

By whom built James Smith & Co

When built 1906

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ DONKEY. — Manufacturers of Steel John Spencer & Son Ltd

Letter for record

2

Total Heating Surface of Boilers 604 sq ft

Is forced draft fitted no

No. and Description of

Boilers One Cyl Multitubular

Working Pressure 90 lb

Tested by hydraulic pressure to 180 lb

Date of test 23-5-06

No. of Certificate 3677

Can each boiler be worked separately ✓

Area of fire grate in each boiler 26.5 sq ft

No. and Description of

safety valves to each boiler Two Spring loaded

Area of each valve 5.94 sq in

Pressure to which they are adjusted 90 lb

Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork —

dia. of boilers 9'-0"

Length 9'-0"

Material of shell plates Steel

Thickness 17/32"

Range of tensile strength 28/32

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams 2 1/2 in

long. seams 2 1/2 in

Diameter of rivet holes in long. seams 15/16

Pitch of rivets 3 1/2"

Lap of plates or width of butt straps 6 1/2"

Per centages of strength of longitudinal joint

rivets 94%

Working pressure of shell by

rules 90 lb

Size of manhole in shell 16 x 12

Size of compensating ring 5 1/2 x 3 1/4

No. and Description of Furnaces in each

boiler 2 plain

Material Steel

Outside diameter 2'-9"

Length of plain part

top 5'-10"

Thickness of plates

crown 1/2"

Description of longitudinal joint Welded

No. of strengthening rings —

Working pressure of furnace by the rules 97 lb

Combustion chamber

plates: Material Steel

Thickness: Sides 17/32"

Back 9/16"

Top 17/32"

Bottom 5/8"

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

Back 9 x 9"

Top 8 1/2 x 8 3/4" If stays are fitted with nuts or riveted heads 1 1/2 in heads

Working pressure by rules 93 lb

Material of stays Iron

Diameter at

smallest part 1.45"

Area supported by each stay 81 sq in

Working pressure by rules 107 lb

End plates in steam space: Material Steel

Thickness 3/4"

Pitch of stays 15 1/2 x 16 1/2"

How are stays secured 2 in 1/4"

Working pressure by rules 104 lb

Material of stays Iron

Diameter at smallest part 3.43"

Area supported by each stay 255.7 sq in

Working pressure by rules 100 lb

Material of Front plates at bottom Steel

Thickness 3/4"

Material of

Lower back plate Steel

Thickness 3/4"

Greatest pitch of stays 13 x 9"

Working pressure of plate by rules 146 lb

Diameter of tubes 3"

Pitch of tubes 4 1/4 x 4 1/4"

Material of tube plates Steel

Thickness: Front 3/4"

Back 9/16"

Mean pitch of stays 10.6"

Pitch across wide

water spaces 13 1/2"

Working pressures by rules 110.5 lb

Girders to Chamber tops: Material Steel

Depth and thickness of

girder at centre 5 1/2 x 1 1/4"

Length as per rule 22 3/8"

Distance apart 8 1/2"

Number and pitch of Stays in each One 8 3/4"

Working pressure by rules 92 lb

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 —

VERTICAL DONKEY BOILER —

No.

Description

Manufacturers of steel

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

No. of Certificate

Fire grate area

Description of safety valves

No. of safety valves

Area of each

Pressure to which they are adjusted

If fitted with easing gear

If steam from main boilers can

enter the donkey boiler

Dia. of donkey boiler

Length

Material of shell plates

Thickness

Range of tensile

strength

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets
Plates

Working pressure of shell by rules

Thickness of shell crown plates

Radius of do.

No. of Stays to do.

Dia. of stays

Diameter of furnace Top

Bottom

Length of furnace

Thickness of furnace plates

Description of joint

Working pressure of furnace by rules

Thickness of furnace crown

plates

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,

THOMAS & CO. LIMITED

Manufacturer.

of Donkey Boilers.

Dates
of Survey
while
building

During progress of
work in shops - - -
During erection on
board vessel - - -
Total No. of visits

1906 January 24. March 1. 13. 14. 20. 22 April 3. 10. 20. May 3. 9. 15. 23

Is the approved plan of main boiler forwarded herewith

" " " donkey "

Lloyd's Register
Foundation
W854-0008

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

*This boiler has been constructed under Special Survey
the materials and workmanship are good & efficient
and when tested with hydraulic pressure was found
tight and satisfactory.*

*This boiler has now been fitted in place
Saver Jones*

West Hartlepool

*Certificate (if required) to be sent to
Committee's Minute.*

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	19...
Donkey Boiler Fee ...	£	2	2	When received,
Travelling Expenses (if any) £		:	:	19...

Committee's Minute **FRI. 27 JUL 1906**

Assigned

Geo. A. Milner & Co.
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.



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Foundation