

REPORT ON BOILERS.

No. 77717

Received at London Office

THU. 3 APR. 1924

Date of writing Report

102

When handed in at Local Office

21/4/1924

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Log. Book.

Newcastle

Date, First Survey

24th April 1923

Last Survey

2nd April

1924

9579 on the

JAMESON

(Number of Visits —)

Gross 3520

Tons Net 2150

Master

Built at Newcastle

By whom built W. Doherty & Co. Ltd.

Yard No. 221

When built 1924

Engines made at

Newcastle

By whom made North Eastern Marine Eng. Co. Ltd.

Engine No. 2527

When made 1924

Boilers made at

Newcastle

By whom made North Eastern Marine Eng. Co. Ltd.

Boiler No. 2527

When made 1924

Nominal Horse Power

370

Owners Kays Stm. Nav. Co. Ltd.

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Johns & Sons Ltd.

(Letter for Record S)

Total Heating Surface of Boilers

6165 sq

Is forced draught fitted

No.

Coal or Oil fired

Coal

No. and Description of Boilers

Three single end cylindrical

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

28. 1. 24

No. of Certificate

9806

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

55 sq

No. and Description of safety valves to each boiler

Two Spring-loaded

Area of each set of valves per boiler

per Rule 13.17 sq

as fitted 14.137 sq

Pressure to which they are adjusted

185 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

42"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

23"

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

14' 0 3/4"

Length

11' 6"

Shell plates: Material

Steel

Tensile strength

28 3/4" 32 3/4"

Thickness

1 1/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end Double

Long. seams

Double

Diameter of rivet holes in

circ. seams 1 5/16"

long. seams 1 3/16"

Pitch of rivets

3 3/8"

Percentage of strength of circ. end seams

plate 61.1

rivets 57.0

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 88.8

rivets 88.1

Working pressure of shell by Rules

180.8 lbs

Thickness of butt straps

outer 7/8"

inner 1"

No. and Description of Furnaces in each Boiler

Three Brighton

Material

Steel

Tensile strength

26/30 2msd

Smallest outside diameter

39 3/4"

Length of plain part

top

bottom

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

181 lbs

End plates in steam space: Material

Steel

Tensile strength

26/30 2msd

Thickness

1 5/16"

Pitch of stays 25" x 19 1/2"

How are stays secured

Double nuts & washers

Working pressure by Rules

180 lbs

Tube plates: Material

front Steel

back Steel

Tensile strength

26/30 2msd

Thickness

1 5/16"

3/4"

Mean pitch of stay tubes in nests

10"

Pitch across wide water spaces

14 1/2" x 8 3/4"

Working pressure

front 185 lbs

back 201 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 2msd

Depth and thickness of girder

at centre 9 1/2" x 1 1/2"

Length as per Rule

36"

Distance apart

9 1/2"

No. and pitch of stays

in each Two - 10 1/2"

Working pressure by Rules

184 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26/30 2msd

Thickness: Sides

2 3/4"

Back

2 3/4"

Top

2 3/4"

Bottom

1 5/16"

Pitch of stays to ditto: Sides 10 1/2" x 9 1/2"

Back 10 1/2" x 9 1/2"

Top 10 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

180 lbs

Front plate at bottom: Material

Steel

Tensile strength

26/30 2msd

Thickness

1 5/16"

Lower back plate: Material

Steel

Tensile strength

26/30 2msd

Thickness

7/8"

Pitch of stays at wide water space

14 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

208 lbs

Main stays: Material

Steel

Tensile strength

28/32 2msd

Diameter

At body of stay, 3 1/4"

or Over threads

No. of threads per inch

Six

Area supported by each stay

487.5 sq

Working pressure by Rules

190 lbs

Screw stays: Material

Steel

Tensile strength

26/30 2msd

Diameter

At turned off part, 1 3/4"

or Over threads

No. of threads per inch

Nine

Area supported by each stay

99.75 sq

REPORT ON BOILERS

Working pressure by Rules 182 lbs Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 2" 1 1/8" or Over threads 2" 1 1/8" ✓

No. of threads per inch nine ✓ Area supported by each stay 116 3/5 sq" Working pressure by Rules 182 lbs

Tubes: Material iron ✓ External diameter { Plain 3 1/4" ✓ Stay 3 1/4" ✓ Thickness { 1/4" & 5/16" ✓ No. of threads per inch nine ✓

Pitch of tubes 4 1/2" x 4 3/8" ✓ Working pressure by Rules plain 230 lbs stay 182 lbs Manhole compensation: Size of opening in end shell plate 16" x 12" ✓ Section of compensating ring none No. of rivets and diameter of rivet holes ✓

Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 4 1/4" ✓ Steam Dome: Material none ✓

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 ✓ Inner radius of crown ✓ Working pressure by Rules ✓

How connected to shell ✓ 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 none 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 ✓

The foregoing is a correct description,
THE NORTH EASTERN MARINE ENGINEERING CO., LTD. Manufacturer.

Dates of Survey { During progress of work in shops - - } See Machinery Report Are the approved plans of boiler and superheater forwarded herewith ✓ (If not state date of approval.)

while building { During erection on board vessel - - - } ✓ Total No. of visits ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers were constructed under special survey. The materials and workmanship are sound and good. They were tested by hydraulic pressure with satisfactory results, subsequently installed in the vessel, efficiently fastened and the safety valves adjusted under steam. In my opinion the vessel is eligible for notation + L.M.C. of 24 in the Society's Register Book. ✓

Survey Fee ... £ See Machinery Report When applied for, 192

Travelling Expenses (if any) £ See Machinery Report When received, 192

R. Lee Amess
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. SEPT. 1924

Assigned ✓



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Lloyd's Register Foundation

These parts
Signal Letters

Official

147,610.

No., Date, and
Whether British
Foreign Built

British

Number of Decks
Number of Masts
Rigged ...
Stern ...
Build ...
Galleries ...
Head ...
Framework ...
vessel ...
Number of Buoy
Number of watertight
and their capacity

Total to quarter ton
to bottom of keel

No. of
sets of
engines.

One Tripl.
dire
Vert

No. of
shafts.

One Description
Number
Iron or Steel
Loaded

Under Tonnage
Space or spaces
Curret or Trun
Forecastle ...
Bridge space
Poop or Break
Side Houses
Deck Houses
Chart House
Spaces for mach
Section 78 (2)
1894 ...
Excess of Hatch
Gross
Reductions, as
Registered

NOTE 1.—The tonnage
propeller

NOTE 2.—The under

Forecast
Bridge L
In Round
In Round

Name of

No. of Owners
Name, Residence

Kaye Ste
Limited,
L

Sixty-f
dated 27
of (334798) Wt.