

REPORT ON BOILERS.

No. 78211

Received at London Office

26 AUG 1924

Date of writing Report

192

When handed in at Local Office

23/8/1924

Port of

NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at

Newcastle-on-Tyne

Date, First Survey

4th March

Last Survey

21st August 1924

(Number of Visits)

Gross

Tons

Net

28240 on the Steel Co. CYRILLE DANNEELS

Built at

Goole

By whom built

Goole S. B. Co

Yard No.

257

When built

1924

at

Mallond-on-Tyne

By whom made

North Eastern Marine & Co Ltd

Engine No.

2566

When made

1924

at

80

By whom made

80

Boiler No.

2566

When made

1924

Horse Power

204

Owners

Rush & Son Shipping & Coal Exporters Ltd. Port belonging to

Goole.

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Makers of Steel John Spencer & Sons Ltd. Steel Company of Scotland Ltd. (Letter for Record S. ✓)

No. of Boilers 3540 3540 Is forced draught fitted 20 ✓ Coal or Oil fired coal ✓

Description of Boilers 2 Single ended Multitubular ✓ 2SB. Working Pressure 180 lbs

Hydraulic pressure to 320 Date of test 19.6.24 No. of Certificate 9834 Can each boiler be worked separately Yes ✓

Regulate in each Boiler 48 ✓ No. and Description of safety valves to each boiler 2 Spring loaded ✓

Each set of valves per boiler {per Rule 11.35" ✓ as fitted 11.87" ✓ Pressure to which they are adjusted 185 lbs ✓ Are they fitted with easing gear Yes ✓

Donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

Distance between boilers on uptakes and bunkers or woodwork 24" ✓ Is oil fuel carried in the double bottom under boilers No. ✓

Distance between shell of boiler and tank top plating 20" ✓ Is the bottom of the boiler insulated No. ✓

Internal dia. of boilers 13-6 3/4 ✓ Length 10-6 ✓ Shell plates: Material steel ✓ Tensile strength 28-32 ✓

1/8" ✓ Are the shell plates welded or flanged 20 ✓ Description of riveting: circ. seams {end 3/8" ✓ inter. 3/8" ✓

Double butt straps ✓ Diameter of rivet holes in {circ. seams 1 3/16" ✓ long, seams 1 3/16" ✓ Pitch of rivets { 8 3/8" ✓

e of strength of circ. end seams {plate 66.0 ✓ rivets 42.0 ✓ Percentage of strength of circ. intermediate seam {plate 20 ✓ rivets ✓

e of strength of longitudinal joint {plate 85.83 ✓ rivets 90.4 ✓ Working pressure of shell by Rules 182 lbs

of butt straps {outer 7/8" ✓ inner 1/2" ✓ No. and Description of Furnaces in each Boiler 3 Brighton ✓

Steel ✓ Tensile strength 26-30 tons ✓ Smallest outside diameter 35" ✓

f plain part {top 1/2" ✓ bottom 1/2" ✓ Thickness of plates {crown 1/2" ✓ bottom 1/2" ✓ Description of longitudinal joint welded ✓

ns of stiffening rings on furnace or c.c. bottom none ✓ Working pressure of furnace by Rules 191 lbs

es in steam space: Material steel ✓ Tensile strength 26-30 ✓ Thickness 1 1/4" ✓ Pitch of stays 24" x 17 3/4"

stays secured double butts and washer 3 1/2 D. ✓ Working pressure by Rules 182 lbs

ates: Material {front steel ✓ back " ✓ Tensile strength { 26-30 ✓ Thickness { 1 1/2" ✓

Pitch of stay tubes in nests 9 1/4" ✓ Pitch across wide water spaces 14 1/2" x 9" ✓ Working pressure {front 182 lbs ✓ back 190 "

to combustion chamber tops: Material steel ✓ Tensile strength 28-32 tons ✓ Depth and thickness of girder

8 1/4" x 1 1/2" ✓ Length as per Rule 30" ✓ Distance apart 10 1/2" ✓ No. and pitch of stays

2-9 3/8" ✓ Working pressure by Rules 185 lbs ✓ Combustion chamber plates: Material steel ✓

strength 26-30 tons ✓ Thickness: Sides 11/16" ✓ Back 11/16" ✓ Top 11/16" ✓ Bottom 13" ✓

stays to ditto: Sides 10 1/2" x 9 3/8" ✓ Back 10" x 9" ✓ Top 10 1/2" x 9 3/8" ✓ Are stays fitted with nuts or riveted over nuts ✓

Pressure by Rules 182-187 ✓ Front plate at bottom: Material steel ✓ Tensile strength 26-30 tons

ss 15/16" ✓ Lower back plate: Material steel ✓ Tensile strength 26-30 tons Thickness 3/4" ✓

f stays at wide water space 14 1/2" x 9" ✓ Are stays fitted with nuts or riveted over nuts ✓

g Pressure 184 lbs ✓ Main stays: Material steel ✓ Tensile strength 28-32 tons

Diameter {At body of stay, 3" ✓ or Over threads 3 1/4" ✓ No. of threads per inch 6 ✓ Area supported by each stay 426 sq"

Working pressure by Rules 182 lbs ✓ Screw stays: Material steel ✓ Tensile strength 26-30 tons

Diameter {At turned off part, 1 3/4" ✓ or Over threads 1 3/4" ✓ No. of threads per inch 9 ✓ Area supported by each stay 98.4

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Working pressure by Rules 184 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 1/8"
 No. of threads per inch 9 Area supported by each stay 11" x 10 5/8" Working pressure by Rules 182.5 psi
 Tubes: Material Iron External diameter { Plain 8 1/4" Stay 8 1/4" Thickness { 8.5 WG 5/16" x 1/4" No. of threads per inch 9
 Pitch of tubes 4 3/4" x 4 1/2" Working pressure by Rules 190 psi Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring Flanged No. of rivets and diameter of rivet holes 36 Rivets - 1 7/16"
 Outer row rivet pitch at ends 9 1/2" Depth of flange if manhole flanged 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 No.

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

Stephenson Manufacturer.

Dates of Survey { During progress of work in shops - - }
 while building { During erection on board vessel - - }

See Machinery Report

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

Total No. of visits -

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

These Boilers were constructed under special survey. The materials & workmanship are sound and good. They were subjected to a hydraulic test with satisfactory results and have been efficiently installed on the steamer "Gyrlle Danneels". The safety valves were adjusted under steam.

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 TUES. 21 OCT 1924

Assigned



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