

REPORT ON BOILERS.

No. 50695

Received at London Office

20 AUG 1930

Date of writing Report

19

When handed in at Local Office

19. 8. 10. 39

Port of

Glasgow

No. in Reg. Book

Survey held at

Glasgow

Date, First Survey

17 12 29

Last Survey

18-8-

1930

(Number of Visits

68)

Gross

100 14

Tons

Net

on the new steel M/V "LAUREL".

Master

Built at

Blythwood

By whom built

Blythwood SBC

Yard No. 28

When built 1930

Engines made at

Stockholm

By whom made

Aktie Atlas Diesel

Engine No. 50126

When made 1930

Boilers made at

Glasgow

By whom made

David Rowan & Co Ltd

Boiler No. 930

When made 1930

Nominal Horse Power

848

Owners

Federickie Oil Transporter

Port belonging to

Stockholm

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel James Dunlop & Co Ltd Dorman Long & Co Ltd (Letter for Record S)

Total Heating Surface of Boilers

3312 sq ft

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

two single ended

Working Pressure

150

Tested by hydraulic pressure to

275

Date of test

11-3-30

No. of Certificate

18638 Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Improved High Lift

Area of each set of valves per boiler

per Rule 7.52 sq ft

Pressure to which they are adjusted

148

Are they fitted with easing gear

yes

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

Thin pressure at Engineer's request

Smallest distance between boilers or uptakes and bunkers or woodwork

remote

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Boilers on main deck

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

12'-6"

Length

11'-0"

Shell plates: Material

steel

Tensile strength

29-33 tons

Thickness

21"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

DR

long. seams

DBS. TR

Diameter of rivet holes in

circ. seams

15"

Pitch of rivets

2'-6"

inter.

DBS. TR

Percentage of strength of circ. end seams

plate

63.9

rivets

50.2

Percentage of strength of circ. intermediate seam

plate

85.98

rivets

Percentage of strength of longitudinal joint

plate

85.98

rivets

91.2

combined

90.1

Working pressure of shell by Rules

151

Thickness of butt straps

outer

5/8"

No. and Description of Furnaces in each Boiler

Three Morrison

Material

steel

Tensile strength

26-30 tons

Smallest outside diameter

34 3/4"

Length of plain part

top

3/8"

Thickness of plates

crown

3/8"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

151

End plates in steam space: Material

steel

Tensile strength

26-30 tons

Thickness

15"

Pitch of stays

15" x 17 1/2"

How are stays secured

W.N.

Working pressure by Rules

151

Tube plates: Material

front

steel

Tensile strength

26-30 tons

Thickness

21"

32"

16"

Mean pitch of stay tubes in nests

9.405"

Pitch across wide water spaces

13 1/2"

Working pressure

front

154

back

190

Girders to combustion chamber tops: Material

steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

2 @ 1 1/8" x 1/8"

Length as per Rule

30.72"

Distance apart

10"

No. and pitch of stays

in each

2 @ 9 3/4"

Working pressure by Rules

164

Combustion chamber plates: Material

steel

Tensile strength

26-30 tons

Thickness: Sides

21"

32"

Back

19"

32"

Top

21"

32"

Bottom

3/4"

Pitch of stays to ditto: Sides

10 1/4" x 10"

Back

9 1/2" x 8 3/8"

Top

10 1/4" x 10"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

150

Front plate at bottom: Material

steel

Tensile strength

26-30 tons

Thickness

21"

32"

Lower back plate: Material

steel

Tensile strength

26-30 tons

Thickness

11"

16"

Pitch of stays at wide water space

13 1/2" x 8 3/8"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

150

Main stays: Material

steel

Tensile strength

28-32 tons

Diameter

At body of stay,

2 1/4"

No. of threads per inch

9

Area supported by each stay

258 sq"

Working pressure by Rules

165

Screw stays: Material

steel

Tensile strength

26-30 tons

Diameter

At turned off part,

198"

or

17 3/4"

No. of threads per inch

9

Area supported by each stay

108 sq"

Working pressure by Rules 150 Drilled at the outer ends no Margin stays: Diameter { At turned off part, 13/4" or Over threads }
No. of threads per inch 9 supported by each stay 96 0" Working pressure by Rules 189
Tubes: Material Iron Stay 2 1/2" Thickness { 9 w.g. 5/16" No. of threads per inch 9
Pitch of tubes 3 3/4 x 3 3/8 Working pressure by Rules 230 Manhole compensation: Size of opening in
shell plate 15 1/4 x 19 1/4 Section of compensating ring 7 1/4 x 27/32 No. of rivets and diameter of rivet holes 36 @ 1 1/6"
Outer row rivet pitch at ends 6 3/4" Depth of flange if manhole flanged 3" Steam Dome: Material none
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes 8 5 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 22 inclusive for boilers been complied with yes

The foregoing is a correct description,
For David Rowan & Co. Ltd Manufacturer.
Arch. W. Grierson

Dates { During progress of work in shops - - } See accompanying machinery report Are the approved plans of boiler and superheater forwarded herewith yes
while building { During erection on board vessel - - } Total No. of visits 6 8
(If not state date of approval)

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No.

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

The materials and workmanship are good.
The boilers have been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel and their safety valves adjusted under steam

Survey Fee ... £ 22 : 2 : When applied for, 19 AUG 1930
Travelling Expenses (if any) £ : : When received, 22/8/30

L. J. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 AUG 1930

Assigned See accompanying machy report



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Foundation