

REPORT ON BOILERS.

No. 51028

Received at London Office

26 NOV 1930

Date of writing Report

21-11-10

When handed in at Local Office

25-11-10

Port of

GLASGOW.

No. in Survey held at

GLASGOW.

Date, First Survey

9-4-30

Last Survey

18-11-1930

g. Book.

on the

M.V.

POLARTANK.

(Number of Visits

41)

Gross

6356

Net

3872

Master

Built at

GLASGOW.

By whom built

BARCLAY CURLEY & CO LD

Yard No.

645

When built

1930

Engines made at

GLASGOW.

By whom made

BARCLAY CURLEY & CO LD

Engine No.

645

When made

1930

Boilers made at

GLASGOW

By whom made

BARCLAY CURLEY & CO LD

Boiler No.

645

When made

1930

Nominal Horse Power

Owners

HVALFANGERSELSKAPET-POLARIS A/S

Port belonging to

LARVIK

MANAGERS - MELSON & MELSON.

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

J. COLVILLE & SONS LD - Wm BEARDMORE & CO LD

(Letter for Record

(S)

Total Heating Surface of Boilers

1435 sq ft

Is forced draught fitted

NO

Coal or Oil fired

OIL.

No. and Description of Boilers

1 S.B.

Working Pressure

120 LBS.

Tested by hydraulic pressure to

230 LBS

Date of test

8-10-30

No. of Certificate

18834

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

345 sq ft

No. and Description of safety valves to each boiler

2. SPRING LOADED. A.L.

Area of each set of valves per boiler

per Rule

7.96 sq ft

Pressure to which they are adjusted

120 LBS

Are they fitted with easing gear

YES

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

✓

Smallest distance between boilers or uptakes and bunkers or woodwork

WELL CLEAR

Is oil fuel carried in the double bottom under boilers

✓

Smallest distance between shell of boiler and tank top plating

BOILER ON UPPER FLAT

Is the bottom of the boiler insulated

YES

Largest internal dia. of boilers

12'-0"

Length

11'-0"

Shell plates: Material

STEEL

Tensile strength

29/33 TONS

Thickness

21/32"

Are the shell plates welded or flanged

NO

Description of riveting: circ. seams

inter.

✓

Long. seams

T.R.-D.B.S.

Diameter of rivet holes in

circ. seams

15/16"

long. seams

3/4"

Pitch of rivets

3.025"

5.5625"

Percentage of strength of circ. end seams

plate

55.08

Percentage of strength of circ. intermediate seam

plate

86.51

Percentage of strength of longitudinal joint

plate

89.82

combined

90.98

Working pressure of shell by Rules

120 LBS

Thickness of butt straps

outer

17/32"

No. and Description of Furnaces in each Boiler

2. DEIGHTON SECTION.

Material

STEEL.

Tensile strength

26-30 TONS

Smallest outside diameter

3'-5 3/4"

Length of plain part

top

✓

Thickness of plates

crown

3/8"

bottom

Description of longitudinal joint

WELD.

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

✓

Working pressure of furnace by Rules

127 LBS.

End plates in steam space: Material

STEEL

Tensile strength

26-30 TONS

Thickness

7/8"

Pitch of stays

14" x 16 1/4"

How are stays secured

D.N.

Working pressure by Rules

126 LBS

Tube plates: Material

front

STEEL.

back

Tensile strength

26-30 TONS

Thickness

23/32"

5/8"

Mean pitch of stay tubes in nests

10'-6"

Pitch across wide water spaces

14'

Working pressure

front 130 LBS

back 121

Girders to combustion chamber tops: Material

STEEL

Tensile strength

28-32 TONS

Depth and thickness of girder

at centre

8" x 9 1/6" DOUBLE.

Length as per Rule

2'-8 25/32"

Distance apart

9"

No. and pitch of stays

in each

2 @ 10"

Working pressure by Rules

127 LBS

Combustion chamber plates: Material

STEEL.

Tensile strength

26-30 TONS

Thickness: Sides

19/32"

Back

19/32"

Top

19/32"

Bottom

19/32"

Pitch of stays to ditto: Sides

10" x 10"

Back

10 1/2" x 9 1/2"

Top

10" x 9"

Are stays fitted with nuts or riveted over

NUTS

Working pressure by Rules

120 LBS

Front plate at bottom: Material

STEEL.

Tensile strength

26-30 TONS

Thickness

23/32"

Lower back plate: Material

STEEL

Tensile strength

26-30 TONS

Thickness

11/16"

Pitch of stays at wide water space

14 1/4"

Are stays fitted with nuts or riveted over

NUTS

Working Pressure

129 LBS

Main stays: Material

STEEL

Tensile strength

28-32 TONS

Diameter

At body of stay,

2 1/4"

No. of threads per inch

6

Area supported by each stay

276 sq in

Working pressure by Rules

125 LBS

Screw stays: Material

STEEL

Tensile strength

26-30 TONS

Diameter

At turned off part,

1 1/2"

No. of threads per inch

9

Area supported by each stay

1000 sq in

Working pressure by Rules 125 LBS Are the stays drilled at the outer ends NO Margin stays: Diameter { At turned off part, 1 5/8" Over threads 129 LBS
No. of threads per inch 9 Area supported by each stay 117 sq" Working pressure by Rules 129 LBS
Tubes: Material IRON External diameter { Plain 3" Thickness 10 W.S. No. of threads per inch 9 (Stay 3" 1/4: 5/16: 3/8
Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 140 LBS Manhole compensation: Size of opening in shell plate 20 1/4" x 16 1/4" Section of compensating ring 24" x 2 1/32" No. of rivets and diameter of rivet holes 44 - 1"
Outer row rivet pitch at ends 7 3/4" Depth of flange if manhole flanged 4 1/2" Steam Dome: Material IRON
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 _____ 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 _____

FOR BAROLAY, CURCE & CO., LTD.

John H. Saunders
GENERAL MANAGER ENGINE WORKS

The foregoing is a correct description,

Manufacturer.

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

See accompanying machy report

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

Total No. of visits 41

Is this Boiler a duplicate of a previous case YES If so, state Vessel's name and Report No. ALCIDES GLS: RPT 50775.

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

This boiler has been built under special survey, to approved plans, in accordance with the Society's Rules. Materials and workmanship are good. It has been properly fitted on board the vessel, and the safety valves adjusted under steam to 120 lbs.

Survey Fee ... £ See Machy Report When applied for, 19
Travelling Expenses (if any) £ See Machy Report When received, 19

H. Sutherland

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 25 NOV 1930

Assigned See accompanying machy report



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Foundation