

REPORT ON BOILERS.

No. 12093

Received at London Office

FEB 23 1938

Date of writing Report

10

When handed in at Local Office

10

Port of BelfastNo. in Survey held at
Reg. BookBelfast

Date, First Survey

Visits included in 7. E. WelchLast Survey 14th Feb 1938

on the

SINGLE SCREW DEVIS OIL ENGINE

(Number of Visits)

Gross 6054Tons 3744Built at Belfast

By whom built

Harland & Wolff LtdYard No. 1002When built 1938

Engines made at

Belfast

By whom made

Harland & Wolff LtdEngine No. 1002When made 1938

Boilers made at

Belfast

By whom made

Harland & Wolff LtdBoiler No. 1002When made 1938

Owners

Lampert & Holt Ltd

Port belonging to

Liverpool

VERTICAL DONKEY BOILER.

Made at Belfast

By whom made

Harland & Wolff LtdBoiler No. 1002When made 1938Where fixed E.P.

Manufacturers of Steel

Colvilles Ltd

Total Heating Surface of Boiler

750 sq ftIs forced draught fitted NoCoal or Oil fired and or Exhaust

No. and Description of Boilers

One Clarkson Thimble tubeWorking pressure 120 lb

Tested by hydraulic pressure to

230 lb/sq in

Date of test

17-12-37No. of Certificate 1041

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

One 2 1/2 double opening Marine ordinary lift

Area of each set of valves per boiler

per rule 6.94 sq in
as fitted 9.82 sq in

Pressure to which they are adjusted

120 lbAre they fitted with easing gear Yes

State whether steam from main boilers can enter the donkey boiler

Smallest distance between boiler or uptake and bunkers

or woodwork

Is oil fuel carried in the double bottom under boiler

No

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

Largest internal dia. of boiler

6' 2 1/8"Height 16' 3"

Shell plates: Material

S

Tensile strength

26/30 tons

Thickness

7/8"

Are the shell plates welded or flanged at butt or overlaps

Description of riveting: circ. seams

end DR
inter -long. seams DR

Dia. of rivet holes in

circ. seams 1 1/8"
long. seams 1 1/8"

Pitch of rivets

3.25"
4.29"

Percentage of strength of circ. seams

plate 67.32
rivets 57.42

of Longitudinal joint

plate 71.82
rivets 72.12
combined 77.92

Working pressure of shell by rules

150 lb

Thickness of butt straps

outer 1 1/8"
inner 7/8"

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

Yes

Material

S

Tensile strength

26/30 tons

Thickness

1 1/8"

Radius

5' 6"

Working pressure by rules

124 lb

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

top -
bottom -

Length as per rule

Working pressure by rules

Pitch of support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Radius of spherical or dished furnace crown

Working pressure by rule

Thickness of Ogee Ring

3/32"

Diameter as per rule

6' 0 1/8"
3' 9 1/8"

Working pressure by rule

123 lb

Combustion Chamber: Material

S

Tensile strength

26/30 tons

Thickness of top plate

9/16"

Radius if dished

3' 0"

Working pressure by rule

127.7 lb

Thickness of back plate

3/32"

Diameter if circular

3' 7 1/8"

Length as per rule

6' 3"

Pitch of stays

Are stays fitted with nuts or riveted over

combustion chamber

Diameter of stays over thread

Working pressure of back plate by rules

160 lb

Tube Plates: Material

front -
back -

Tensile strength

Thickness

Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule

front -
back -

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay -
plain -

BACK

stay -
plain -

Is each alternate tube in outer vertical rows a stay tube

Working pressure by rules

front -
back -

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

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Foundation

W1187-0131

Crown stays: Material _____ Tensile strength _____ Diameter { at body of stay, _____
or _____
over threads _____
No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter { at turned off part, _____
or _____
over threads _____ No. of threads per inch _____
Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Thimbles _____

Tubes: Material *Steel* ✓ External diameter { plain *Shell 3 1/4"* ✓
stay *C.C. 3 1/4"* ✓ Thickness { *9 B.W.G.* ✓
UP 9 1/2" *UP 7"*
No. of threads per inch ✓ Pitch of tube *SHELL HP 6 3/4" CC HP 6 4/8"* Working pressure by rules ✓

Manhole Compensation: Size of opening in shell plate *16 x 12"* ✓ Section of compensating ring *28 1/2" x 24 1/2" x 1 1/4"* ✓ No. of rivets and diameter _____
of rivet holes *40 - 1 1/8"* ✓ Outer row rivet pitch at ends *3.53"* ✓ Depth of flange if manhole flanged *16 x 12 x 3 1/8"* ✓
in crown

Uptake: External diameter *1 - 10 3/16"* ✓ Thickness of uptake plate *1/2"* ✓

Cross Tubes: No. ✓ External diameters { _____ Thickness of plates _____

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes* ✓

The foregoing is a correct description,
For HARLAND AND WOLFF, LIMITED,

A. J. Marshall
Secretary

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

Is the approved plan of boiler forwarded herewith
(If not state date of approval.)

Total No. of visits _____

Is this Boiler a duplicate of a previous case *Yes* ✓ If so, state Vessel's name and Report No. *MV. DELANE BEL N° 10271.*

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

This boiler has been constructed under special survey & to an approved design. The materials & workmanship are good. It has been satisfactorily tested by hydraulic pressure, installed & fastened on a platform at the aft end of the engine room. The safety valves were adjusted under steam & the accumulation test was satisfactory. In our opinion this boiler is eligible for use on a vessel classed with the Society.

Survey Fee £

Travelling Expenses (if any) £

When applied for, 19

When received, 19

*See machinery
report*

Committee's Minute

FRI 25 FEB 1938

Assigned

See Bel. 7.E 12093

Charles J. Hunter, Rlee. Amers
Engineer Surveyor to Lloyd's Register of Shipping.



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