

REPORT ON BOILERS.

GLASGOW REPORT No. 64350

No. 12865

FEB - 1 1941

Received at London Office

Date of writing Report

19

When handed in at Local Office

30-1-1941

Port of

Belfast

No. in Survey held at

Belfast

Date, First Survey

16 August 1940

Last Survey

20 January 1941

(Number of Visits 16)

Gross

Net

M.V. "DINGLEDALE"

Built at

Glasgow.

By whom built

Harland & Wolff Ltd

Yard No. 10446 When built

Engines made at

Glasgow

By whom made

Harland & Wolff Ltd

Engine No. 1064 When made 1941

Boilers made at

Belfast

By whom made

Harland & Wolff Ltd

Boiler No. 10446 When made 1941

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel

Messrs Colvilles Ltd.

(Letter for Record 5)

Total Heating Surface of Boilers

3836 sq ft

Is forced draught fitted

yes.

Coal or Oil fired

Oil & EXH GAS

No. and Description of Boilers

Two Single ended multitubular

Working Pressure

150 lbs

Tested by hydraulic pressure to

275 lbs

Date of test

20.1.41

No. of Certificate

1126

Can each boiler be worked separately

YES

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2.2 1/2"

High Lift Safety valves.

Area of each set of valves per boiler

per Rule 7.26 sq in

Pressure to which they are adjusted

150 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

YES

Smallest distance between shell of boiler and tank top plating

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

7/8"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end DR

long. seams

T.R. double butt strap

Diameter of rivet holes in

circ. seams

1 3/32"

Pitch of rivets

3.034"

Percentage of strength of circ. end seams

plate 64

rivets 56.1

Percentage of strength of circ. intermediate seam

plate

Percentage of strength of longitudinal joint

plate 84.6

rivets 106.7

combined 90.5

Working Pressure of shell by Rules 154.6 lbs

Thickness of butt straps

outer 1 1/16"

inner 13/16"

No. and Description of Furnaces in each Boiler

26/30 tons.

Two Corrugated "Brighton" Section

Material

Steel

Tensile strength

Smallest outside diameter

42"

Length of plain part

top

Thickness of plates

crown 1/2"

Description of longitudinal joint

Zinc weld

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

Steel

Tensile strength

26/30 tons

Thickness

1 5/16"

Pitch of stays

various

End plates in steam space: Material

Steel

How are stays secured

nuts & washers inside & outside

Tube plates: Material

front Steel

back Steel

Tensile strength

26/30 tons

Thickness

7/8"

Mean pitch of stay tubes in nests

8.54"

Pitch across wide water spaces

13 1/2"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons

Depth and thickness of girder

No. and pitch of stays

at centre

8 1/4" (2 x 3/4)

Length as per Rule

29.94"

Distance apart

11"

in each

3 @ 7 1/4"

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 1/4" x 9 3/4"

Back

9 1/4" x 8"

Top

11" x 7 1/4"

Are stays fitted with nuts or riveted over

all other riveted.

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons

Thickness

1 5/16"

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Are stays fitted with nuts or riveted over

riveted over on back plate

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

At body of stay,

2 1/2"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26/30 tons

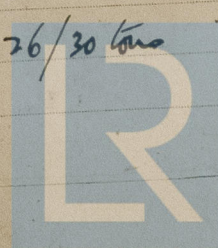
Diameter

At turned off part,

1 1/2" 1 5/8" 2"

No. of threads per inch

9



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Are the stays drilled at the outer ends no. ✓

Margin stays: Diameter { At turned off part, 1 5/8 ✓
or
Over threads

No. of threads per inch 9

Tubes: Material Weldless Steel External diameter { Plain 2 1/2 ✓
Stay 2 1/2 ✓ Thickness { 10 LSG. ✓
1/4, 5/16, 3/8. No. of threads per inch 9 ✓

Pitch of tubes 3 3/4 x 3 5/8 ✓

Manhole compensation: Size of opening in shell plate 16 1/2 x 12 1/2 ✓ Section of compensating ring 2 x [(10 x 3/4) + (1 x 1)] ✓ No. of rivets and diameter of rivet holes 28 @ 1 1/32 dia holes.

Outer row rivet pitch at ends 9 ✓ Depth of flange if manhole flanged 3 3/8 in end plate ✓

Steam Dome: Material

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 Thickness of crown No. and diameter of stays

Inner radius of crown

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 forgings
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

Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes forgings and 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.

For **HABLAND AND WOLFF, LIMITED.**
The foregoing is a correct description,
H. H. Hall Manufacturer.

Dates of Survey { During progress of work in shops - Aug 16 Sept 19 Nov. 20 22
while building { During erection on board vessel - Dec. 2. 16. 18. 20. 30 1941 Jan 1.
2. 4. 8. 10. 17. 20

Are the approved plans of boiler and superheater forwarded herewith no. 20. 2. 40 (If not state date of approval.)

Total No. of visits 16

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under special survey in accordance with the Societ's Rules and approved plans

The materials and workmanship are good.

These boilers have now been despatched to Glasgow where the vessel is building and they will be eligible for the notation + 2 DB 150 lbs sq. inch after being satisfactorily installed on board.

These boilers have been satisfactorily fitted on board, examined under full working conditions and found sound & tight.

Safety valves adjusted under steam to 150 lbs per sq. inch and found satisfactory. washers.

Port Boiler. Starb Boiler
P. S. P. S.
3/8" 1 1/32" 1 1/32" 5/16"

G. E. Murelek.

Survey Fee ... £ 25 : 10 : 0 When applied for, 30. 1. 19 41.

Travelling Expenses (if any) £ : : When received, 19

Committee's Minute **GLASGOW 16 SEP 1941**

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



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