

REPORT ON BOILERS.

No. 12093

Received at London Office FEB 23 1938

Date of writing Report _____ When handed in at Local Office _____ 10 Port of Belfast

No. in Survey held at Belfast Date, First Survey _____ Last Survey 14th July 1938

Reg. Book _____ on the SINGLESCREW DEVIS OIL ENGINE (Number of Visits) _____ Tons } Gross 6054
Net 3744

Built at Belfast By whom built Harland & Wolff Ltd Yard No. 1002 When built 1938

Engines made at Belfast By whom made Harland & Wolff Ltd Engine No. 1002 When made 1938

Boilers made at Belfast By whom made Harland & Wolff Ltd Boiler No. 1002 When made 1938

Owners Lampert & Holt Ltd Port belonging to Liverpool

VERTICAL DONKEY BOILER.

Made at Belfast By whom made Harland & Wolff Ltd Boiler No. 1002 When made 1938 Where fixed E.P.

Manufacturers of Steel Colvilles Ltd

Total Heating Surface of Boiler 750 sq ft Is forced draught fitted No Coal or Oil fired and or Exh gas

No. and Description of Boilers One Clarkson Thimble tube Working pressure 120 lbs

Tested by hydraulic pressure to 230 lbs/sq in Date of test 17-12-37 No. 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 Pressure to which they are adjusted 120 lbs Are they fitted with easing gear Yes
as fitted 9.82 sq in

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 long. seams DR
inter. _____

Dia. of rivet holes in } circ. seams 1 1/8" Pitch of rivets 3.25" Percentage of strength of circ. seams } plate 67.32 of Longitudinal joint } plate 71.87
long. seams 1 1/8" } rivets 57.47 } rivets 72.12
combined 77.97

Working pressure of shell by rules 150 lbs Thickness of butt straps } outer 1 1/8"
inner 1 1/8"

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

Tensile strength 26/30 tons Thickness 1 1/2" Radius 5' 6" Working pressure by rules 124 lbs

Description of Furnace: Plain, spherical, or dished crown _____ Material _____ Tensile strength _____

Thickness _____ External diameter } top _____ Length as per rule _____ Working pressure by rules _____
bottom _____

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 1/32" Diameter as per rule } 6' 0 1/8" Working pressure by rule 123 lbs
a 3' 9 1/8"

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 lbs Thickness of back plate 3 1/32" 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 plates by rules 160 lbs

Tube Plates: Material } front _____ Tensile strength } Thickness _____ Mean pitch of stay tubes in nests _____
back _____

If comprising shell, Dia. as per rule } front _____ Pitch in outer vertical rows } Dia. of tube holes FRONT } stay _____ BACK } stay _____
back _____ } plain _____ } 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 _____

25-2-38

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" ✓ Thickness { 9 B.W.G. ✓ }
 No. of threads per inch ✓ Pitch of tube SHELL HP 6 3/4" CC HP 6-428" 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" ✓

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. Marshall
 Secretary

Dates of Survey while building { During progress of work in shops - - }
 { 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 hydrostatic 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 £ _____ : When applied for, 19
 Travelling Expenses (if any) £ _____ : When received, 19

See machinery report

Charles J. Hunter, R. Lee James
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 25 FEB 1938
 Assigned See Bel. 3.E. 12093

