

REPORT ON BOILERS.

No. 14265

Received at London Office 11 OCT 1946

9th Report 19 When handed in at Local Office 9/10/1946 Port of BELFAST
 Units included in A.E. Machinery report
 Survey held at BELFAST Date, First Survey Last Survey 19
 on the S.S. "BALAENA" (Number of Visits) Tons { Gross 15760 Net 8224
 Built at BELFAST By whom built HARLAND & WOLFF Yard No. 1327 When built 1946
 made at BELFAST By whom made HARLAND & WOLFF Engine No. 1327 When made 1946
 made at BELFAST By whom made HARLAND & WOLFF Boiler No. 1327 When made 1946
 Horse Power 1643 Owners UNITED WHALERS, L.D. Port belonging to LONDON

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY. FORWARD

Manufacturers of Steel COLVILLES (Letter for Record S ✓)
 Heating Surface of Boilers 4 x 3068 SQ. FT. Is forced draught fitted YES ✓ Coal or Oil fired OIL ✓
 Description of Boilers 4 CYLINDRICAL SMOKE TUBE Working Pressure 220 LB/0" ✓
 hydraulic pressure to 380 LB/0" Date of test 15/3/46 22/3/46 4/4/46 27/4/46 No. of Certificate 1294-5-6-7 Can each boiler be worked separately YES ✓
 Firegrate in each Boiler — No. and Description of safety valves to each boiler 2 - 2 1/2 DIA. IMP. HIGH LIFT
 each set of valves per boiler { per Rule 8.18 0" as fitted 9.8 0" Pressure to which they are adjusted 226 LB/0" Are they fitted with easing gear YES ✓
 of donkey boilers, state whether steam from main boilers can enter the donkey boiler — BOILERS ON
 distance between boilers or uptakes and bunkers or woodwork AMPLE ✓ Is oil fuel carried in the double bottom under boilers TWEEN DK.
 distance between shell of boiler and tank top plating AMPLE ✓ Is the bottom of the boiler insulated YES ✓
 internal dia. of boilers 15'-11 31/32" Length 12'-6" ✓ Shell plates: Material S ✓ Tensile strength 30/34 T/0" ✓
 1 33/64" Are the shell plates welded or flanged NO ✓ Description of riveting: circ. seams { end D.R. LAP inter. —
 T.R.D.B.S. Diameter of rivet holes in { circ. seams 1 19/32" ✓ long. seams 1 19/32" ✓ Pitch of rivets { 4" 10 5/8" ✓
 of strength of circ. end seams { plate 60.17 rivets 50.49 Percentage of strength of circ. intermediate seam { plate — rivets —
 of strength of longitudinal joint { plate 85.0 rivets 89.13 combined 87.8 Working pressure of shell by Rules 234 LB/0" ✓
 of butt straps { outer 1 5/32" inner 1 9/32" No. and Description of Furnaces in each Boiler 3 DEIGHTON CORRUGATED ✓
 S Tensile strength 26/30 T/0" ✓ Smallest outside diameter 3'-11 23/32" ✓
 plain part { top — bottom — Thickness of plates { crown 47/64" bottom — Description of longitudinal joint FIRE WELD
 of stiffening rings on furnace or c.c. bottom — Working pressure of furnace by Rules AS APP.
 stays in steam space: Material S ✓ Tensile strength 26/30 T/0" ✓ Thickness 1 13/32" Pitch of stays VARIOUS
 stays secured NUTS & WASHERS IN & OUT Working pressure by Rules AS APP.
 es: Material { front S back S Tensile strength { 26/30 T/0" ✓ Thickness { 15/16" 7/8" ✓
 of stay tubes in nests 8.625" - W. 9.625" - C ✓ Pitch across wide water spaces 14 1/2" Working pressure { front AS APP. back —
 combustion chamber tops: Material S Tensile strength 28/32 T/0" ✓ Depth and thickness of girder
 14 1/4" x 1 1/4" Length as per Rule 4'-0 1/2" Distance apart 8" ✓ No. and pitch of stays
 ELDED TO C.C. Working pressure by Rules AS APP. Combustion chamber plates: Material S ✓
 length 26/30 T/0" Thickness: Sides 13/16" Back 23/32" Top 13/16" Bottom 29/32" ✓
 stays to ditto: Sides 9 13/16" x 10" Back 9 1/8" x 8" W WELDED GIRDERS Are stays fitted with nuts or riveted over C.C. PLATES
 pressure by Rules AS APP. Front plate at bottom: Material S Tensile strength 26/30 T/0" ✓
 15/16" Lower back plate: Material S Tensile strength 26/30 T/0" ✓ Thickness 15/16" ✓
 stays at wide water space 1'-3 3/8" ✓ Are stays fitted with nuts or riveted over WELDED AT BACK ENDS
 Pressure AS APP Main stays: Material S Tensile strength 28/32 T/0" ✓
 Register body of stay, 3 3/4" x 3 1/2" No. of threads per inch 6 Area supported by each stay VARIOUS
 pressure by Rules AS APP. Screw stays: Material S Tensile strength 26/30 T/0" ✓
 turned off part, 1 5/8", 1 7/8", 2" No. of threads per inch 9 - TO SHELL Area supported by each stay VARIOUS

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Working pressure by Rules *As APP* Are the stays drilled at the outer ends *No* Margin stays: Diameter { At turned off part, 1 7/8
or Over threads
No. of threads per inch *-* Area supported by each stay *12 3/16" x 8"* Working pressure by Rules *As APP*
Tubes: Material *S* External diameter { Plain *2 1/2"* Thickness { *8 L.S. 9"* No. of threads per inch *9*
Stay *2 1/2"* Pitch of tubes *4" x 3 5/8"* Working pressure by Rules *As APP* Manhole compensation: Size of
shell plate *-* Section of compensating ring *-* No. of rivets and diameter of rivet holes *-*
Outer row rivet pitch at ends *-* Depth of flange if manhole flanged *4 1/8", 3 3/8"* 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 *-* Working pressure by Rules *-* Thickness of crown *-* No. and
stays *-* Inner radius of crown *-* Working pressure by Rules *-*
How connected to shell *-* Size of doubling plate under dome *-* Diameter of rivet hole
of rivets in outer row in dome connection to shell *-*

Type of Superheater *N.E. MAR. C.C. TYPE* Manufacturers of { Tubes *TALBOT STEAD & TUBES L.*
Steel forgings *-*
Steel castings *-*
Number of elements *84 TOTAL* Material of tubes *S.D.S.* Internal diameter and thickness of tubes *1.273" x 7"*
Material of headers *S.D.S.* Tensile strength *26/28 T/°"* Thickness *1"* Can the superheater be
the boiler be worked separately *No* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *YES*
Area of each safety valve *3.14"* Are the safety valves fitted with easing gear *No* Working pressure
Rules *As APP* Pressure to which the safety valves are adjusted *226 LB/°"* Hydraulic test
tubes *1500 LB/°"* forgings and castings *HEADERS 660 LB/°"* and after assembly in place *660 LB/°"* Are drawn
valves fitted to free the superheater from water where necessary *YES*
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *YES*
The foregoing is a correct description,
M. J. M. J.

Dates of Survey { During progress of work in shops *-*
while building { During erection on board vessel *-*
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
Total No. of visits *-*

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.)

These boilers have been built under Special Survey in accordance with the Society's Rules and approved plan.
The materials and workmanship are good.
The boilers have been efficiently installed on board the vessel, the safety valves adjusted under steam for a working pressure of 220 lb/°" and a safety factor accumulation test held.

Survey Fee *See Engine Rmt.* £ : : When applied for, 19
Travelling Expenses (if any) £ : : When received, 19

John M. J. M. J.
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *FRI. 22 NOV 1946*

Assigned *See F.E. mch. rpt.*



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