

## REPORT ON BOILERS.

Mdb. 17924.

No. 121

Received at London Office 5-OCT 1945

Date of writing Report 19 When handed in at Local Office (Mdb.) 26:9: 10 45. Port of Nottingham.  
(Mdb.) 18th Feb. 1944. 17th Sept. 1945.  
No. in Survey held at Lincoln. & MIDDLESBROUGH Date, First Survey 10.1.45. Last Survey 15.6. 1945.  
Reg. Book (Mdb.) 31. (Number of Visits 10 ) Gross Tons Net  
on the Admiralty 750 ton Lifting Craft L.C. 28.  
Built at Middlesbrough By whom built The Tees-Side Bridge & Eng. Wks. Yard No. LC 28 When built 1945.  
Engines made at - By whom made - Engine No. 51990 When made -  
Boilers made at Lincoln By whom made Ruston & Hornsby Ltd. Boiler No. 51991 When made 1945  
Owners British Admiralty Port belonging to - Newcastle / Ympe

## VERTICAL DONKEY BOILERS

Made at Lincoln By whom made Ruston & Hornsby Ltd. Boiler No. 51991 When made 1945 Where fixed -  
Manufacturers of Steel Appleby Frodingham Steel Co. Ltd., Scunthorpe, Lines  
Total Heating Surface of Boiler 299 sq.ft. Is forced draught fitted No Coal or Oil fired Oil. ✓  
No. and Description of Boilers 2-Vertical "Thermax" Water tube boilers Working pressure 130 lb.  
Tested by hydraulic pressure to 245 lb Date of test 13.6.45., 15.6.45. No. of Certificate 89,90  
Area of Firegrate in each Boiler 22.5 sq.ft. No. and Description of safety valves to each boiler 2" - Double spring Marine  
Area of each set of valves per boiler { per rule 3.3 sq.in. Pressure to which they are adjusted 130 lbs - Are they fitted with easing gear - Yes.  
as fitted 6.28 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  
9" Is the base of the boiler insulated - Largest internal dia. of boiler 6'-0.3/16" Height 13'-6" ✓  
Shell plates: Material S.M. Steel Tensile strength 28/32 Thickness 15/32 ✓  
Are the shell plates welded or flanged Flanged ✓ If fusion welded, state name of welding firm -  
Have all the requirements of the Rules for Class I vessels been complied with - Description of riveting: circ. seams { end Single Riv. Lap ✓  
inter. Single Riv. Lap ✓  
long. seams Double Riv. Double Butt Dia. of rivet holes in { circ. seams 25/32" Pitch of rivets { 2.1/8" ✓ Percentage of strength of circ. seams { plate 63 ✓  
{ long. seams 23/32" { 3.1/8" ✓ { rivets 40 ✓  
of Longitudinal joint { plate 77 ✓ Thickness of butt straps { outer 15/32" ✓ Shell Crown: Whether complete hemisphere, dished partial  
{ rivets 82 ✓ { inner 15/32" ✓  
{ combined - ✓  
spherical, or flat Dished Material S.M. Steel Tensile strength 26/30 Thickness 27/32 ✓  
Radius 6'-0" Description of Furnace: Plain, spherical, or dished crown Dished Material S.M. Steel ✓  
Tensile strength 26/30 Thickness 13/16", 15/16" External diameter { top 4'-11.1/4" ✓ Length as per rule -  
{ bottom 5'-6" ✓  
Pitch of support stays circumferentially 11" inside fixed vertically Single row Are stays fitted with nuts or riveted over Riveted ✓  
box  
Diameter of stays over thread 1.7/3" Radius of spherical or dished furnace crown -  
Thickness of Ogee Ring - Diameter as per rule { D -  
{ a -  
Combustion Chamber: Material - Tensile strength - Thickness of top plate -  
Radius if dished - Thickness of back plate - Diameter if circular -  
Length as per rule - Pitch of stays -  
Are stays fitted with nuts or riveted over - Diameter of stays over thread -  
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 - { plain - BACK { stay -  
{ plain -  
Is each alternate tube in outer vertical rows a stay tube  
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 -

010705-010711-0034

©-2021

Lloyd's Register  
Foundation



Crown stays: Material - Tensile strength - Diameter { at body of stay, - or over threads, -

No. of threads per inch - Screw stays: Material - Tensile strength -

Diameter { at turned off part, - or over threads, - No. of threads per inch - Are the stays drilled at the outer ends -

Tubes: Material 48 of Solid drawn Steel ✓ External diameter { plain 2.1/2" ✓ stay - Thickness { 10 S.W.G. ✓

No. of thraeds per inch - Pitch of tubes 5.15/16", 3.7/16" ✓

Manhole Compensation: Size of opening in shell plate 16" x 12" ✓ Section of compensating ring 1" ✓ No. of rivets and diameter of rivet holes 44 x 25/32" ✓ Outer row rivet pitch at ends 3" ✓ Depth of flange if manhole flanged -

Uptake: External diameter 1'-10.3/8" ✓ Thickness of uptake plate 15/16" ✓

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,

Manufacturer.

Huston & Hornsby, Limited.

Dates of Survey { During progress of work in shops - 10.1.45 to 15.6.45. 10 visits Is the approved plan of boiler forwarded herewith 43-B-428 2.9.43. (If not state date of approval.)

while building { During erection on board vessel - (Mdb.) 1944. Feb. 18, 21, March 7, Apr. 13, Total No. of visits 31. June 5, Nov. 10, 1945. May 29, June 8, 19, 29, July 3(2), 5, 6, 9, 10, 16, 17, 28, 30, Aug. 8, 9, 20, 21, Sept. 3, 5, 6, 7, 10, 14, 17.

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Report No. 106

#### 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, the Secretary's letters and the Approved Plans. Workmanship and materials are good. The boilers have been despatched to Messrs. Tees Side Bridge & Engineering Works Ltd., for installation in the vessel.

The boilers have been securely fitted on board, examined under working conditions & found satisfactory.

The S.V.'s have been adapted under steam & 130 lbs/p.s.i. & the accumulation test carried out.

The Boilers are eligible in my opinion to be classed 12th Edition + N.B. (2) 9.45.

The accumulators have been satisfactorily installed aboard, & tested under working conditions, to Admiralty Specification, with satisfactory results. All steam pipes tested to Rank Requirements, before being fitted in place.

All compressor air pipes tested to 100 lbs/p.s.i. in place during trials.

All ballast tank hydraulically tested to 100 lbs/p.s.i. & found satisfactory.

\* Feed, blegs & ballast pump, suction lines tried out & found satisfactory.

The conditions of the Machinery Specification have been satisfactorily complied with.

(Mdb.) 4:10:45.

Survey Fee (N.B.) £ 12 : 0 : } When applied for, Monthly A/c.

Travelling Expenses (if any) £ 12 : 10 : } When received, 19

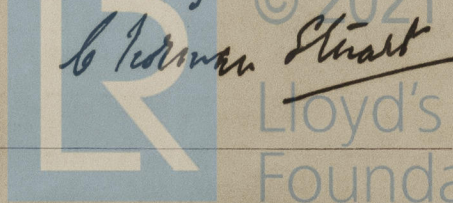
Supervisor: J. S. P. 12 : 10 Supervision of Specification.

No rendered from  
London 28/3/46

Committee's Minute FRI. 23 NOV 1945

Assigned + NB 9.45.

J. Buchanan &  
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register  
Foundation