

RAG 15053

## REPORT ON BOILERS.

No. 9904.

Received at London Office.

25 NOV 1953

Date of writing Report 5th NOVEMBER 1953. When handed in at Local Office 5th NOVEMBER 1953. Port of DUNDEE.

No. in Reg. Book. Survey held at DUNDEE. Date, First Survey 21. 4. 53. Last Survey 30. 10. 53. 19.

352505 on the SINGLE SCREW OIL TANKER EDDYREEF. (Number of Visits 7) Tons { Gross 2219 Net 901

Built at DUNDEE By whom built MESSRS CALEDON S.B. & E CO LTD. Yard No. 492. When built 1953.

Engines made at RENFREW GLASGOW By whom made MESSRS LOBNITZ & CO LTD. Engine No. B 1558. When made 1953.

Boilers made at DUNDEE By whom made MESSRS CALEDON S.B. & E CO LTD. Boiler No. 692. When made 1953.

MN as per Rule 315 Owners THE ADMIRALTY Port belonging to LONDON.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel MESSRS COLVILLES LTD.

Total Heating Surface of Boilers 7530 sq ft. Of Superheaters —

Total for Register Book 7530 sq ft. Is forced draught fitted YES. Coal or Oil fired OIL.

No. and Description of Boilers TWO CYLINDRICAL MULTITUBULAR. Working Pressure 250 lbs.

Tested by hydraulic pressure to 425 lbs. Date of test 9. 6. 53. No. of Certificate 1082-3. Can each boiler be worked separately YES.

Area of Firegrate in each Boiler — No. and Description of safety valves to each boiler ONE DOUBLE SPRING IMP. H.L.

Area of each set of valves per boiler { per Rule AS APPROVED 8.96 as fitted 9.68 Pressure to which they are adjusted 250 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 2'-6" Is oil fuel carried in the double bottom under boilers NO.

Smallest distance between shell of boiler and tank top plating 10" Is the bottom of the boiler insulated YES.

Largest internal dia. of boilers 16'-3" Length 12'-3" Shell plates: Material S.M. STEEL Tensile strength 30-34 TONS.

If fusion welded, state name of welding Firm — Have all the requirements of the Rules for Class I vessels been complied with — Thickness 1 23/32 Are the shell plates welded or flanged — Description of riveting: circ. seams { end DOUBLE RIVETED inter —

long. seams T.R.D. 65 Diameter of rivet holes in { circ. seams 1 23/32 long. seams 1 23/32 Pitch of rivets { 4.352 11 3/8

Percentage of strength of circ. end seams { plate 60.5 % rivets 47.5 % Percentage of strength of circ. intermediate seam { plate — rivets —

Percentage of strength of longitudinal joint { plate 84.89 % rivets 85.2 % combined 86.7 %

Thickness of butt straps { outer 1 5/16 inner 1 7/16 No. and Description of Furnaces in each Boiler 3 DEIGHTON SECTION STEPHEN GOURLAY NECK

Material S.M. STEEL Tensile strength 26-30 Smallest outside diameter 4'-25 5/8

Length of plain part { top — bottom — Thickness of plates 13 1/16 Description of longitudinal joint WELDED

Dimensions of stiffening rings on furnace or c.c. bottom NONE

End plates in steam space: Material S.M. STEEL Tensile strength 26-30 TONS Thickness 29 3/32 Pitch of stays 8" x 9"

How are stays secured NUTS INSIDE & OUTSIDE

Tube plates: Material { front S.M. STEEL back S.M. STEEL Tensile strength { 26-30 TONS 26-30 Thickness { FRONT 13 1/16 BACK 23 3/32

Mean pitch of stay tubes in nests 8-31 Pitch across wide water spaces 19"

Girders to combustion chamber tops: Material S.M. STEEL Tensile strength 28-32 TONS Depth and thickness of girder at centre 11" x 7 7/8 Length as per Rule 3'-4" Distance apart 9" No. and pitch of stays 3 @ 9"

Combustion chamber plates: Material S.M. STEEL

Tensile strength 26-30 TONS Thickness: Sides 25 3/32 Back 23 3/32 Top 25 3/32 Bottom 15 1/16

Pitch of stays to ditto: Sides 9" x 9" Back 9" x 8" Top 9" x 9" Are stays fitted with nuts or riveted over NUTS

Front plate at bottom: Material S.M. STEEL Tensile strength 26-30 TONS

Thickness 15 1/16 Lower back plate: Material S.M. STEEL Tensile strength 26-30 TONS Thickness 29 3/32

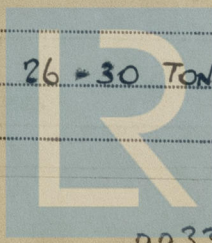
Pitch of stays at wide water space 19" Are stays fitted with nuts or riveted over NUTS

Main stays: Material S.M. STEEL Tensile strength 28-32 TONS

Diameter { At body of stay 3 Over threads 3 1/4 No. of threads per inch 6 THREADS

crew stays: Material S.M. STEEL Tensile strength 26-30 TONS

Diameter { At turned off part 1 7/8 Over threads 1 7/8 No. of threads per inch 9 TH/IN



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Are the stays drilled at the outer ends..... No ✓  
Margin stays: Diameter { At turned off part or Over threads..... 2" ✓  
No. of threads per inch..... 9 ✓  
Tubes: Material 50 STEEL ✓ External diameter { Plain..... 2 1/2" ✓ Stay..... 2 1/2" ✓ Thickness { 8 SWG. ✓ 5/16" 3/8" 7/16" No. of threads per inch..... 9 T.P.D.S. ✓  
Pitch of tubes..... 3 3/4" (HORIZ) ✓ 3 5/8" (VERT) ✓ Manhole compensation: Size of opening.....  
shell plate..... 21" x 17" ✓ Section of compensating ring..... 3' 0" x 3' 4" x 1 1/8" ✓ No. of rivets and diameter of rivet holes..... 26, 1 23/32"  
Outer row rivet pitch at ends..... 4.352" ✓ Depth of flange if manhole flanged..... 4 1/2" ✓ 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 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 AND ON BEHALF OF  
THE CALEDON SHIPBUILDING & ENGINEERING CO. LTD.  
The foregoing is a correct description,

Dates of Survey while building { During progress of work in shops - - { 21.4, 28.4, 1.5, 12.6, 19.6, 29.6, 5.7, Are the approved plans of boiler and superheater forwarded herewith..... YES.  
(If not state date of approval.)  
During erection on board vessel - - { SEE MACHINERY REPORT Total No. of visits..... 17.7, 18.10, 20.10, 21.10, 23.10, 25.10, 27.10.53

Is this Boiler a duplicate of a previous case..... YES. If so, state Vessel's name and Report No..... EDDYBEACH, DUNDEE 9825  
EDDYBAY " 9846

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

"The two main boilers described herein have been built under Special Survey in accordance with the approved plans, the requirements of the Rules and the Secretary's letters, suitable for a working pressure of 250. They have been efficiently installed on board the vessel. Safety valves have been adjusted under steam and found satisfactory and are eligible, in our opinion to be classed + L.M.C 10.53.

Survey Fee..... £ 84 : - : - ✓ When applied for..... 9/11/1953.  
Specification  
Travelling expenses (if any) £ 84 : - : - ✓ When received..... 19.....

Committee's Minute..... GLASGOW 24 NOV 1953

Assigned..... SEE ACCOMPANYING MACHINERY REPORT

J.P. Clatney for R.W. Skinner, & A.B. Sunde  
Engineer Surveyor to Lloyd's Register of Shipping.



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