

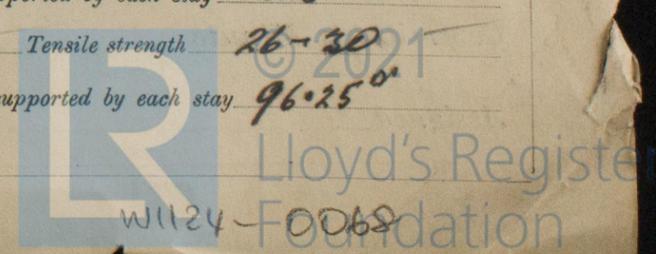
REPORT ON BOILERS.

No. 98187

Date of writing Report 19 When handed in at Local Office 19 JAN 1940 Port of NEWCASTLE-ON-TYNE
 Received at London Office JAN 22 1940
 No. in Reg. Book 38284 Survey held at Wallsend on Tyne Date, First Survey 15.5.39 Last Survey 10-1-1940
 on the S.S. BEECHWOOD (Number of Visits) Gross Tons Net
 Master Sunderland Built at Sunderland By whom built Sir J. Laing & Sons Ltd Yard No. 727 When built
 Engines made at Wallsend By whom made N.E. Marine Eng Co (1938) Ltd Engine No. 2940 When made 1940
 Boilers made at " By whom made " Boiler No. 2940 When made 1940
 Nominal Horse Power " Owners J.S. Jacobs & Co Ltd Port belonging to London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland Ltd (Letter for Record 3)
 Total Heating Surface of Boilers 1235 Is forced draught fitted no Coal or Oil fired coal
 No. and Description of Boilers 1 Aux Sto. Working Pressure 220
 Tested by hydraulic pressure to 380 Date of test 30.10.39 No. of Certificate 831 Can each boiler be worked separately ✓
 Area of Firegrate in each Boiler 34 1/2 sq ft No. and Description of safety valves to each boiler 1 Double
 Area of each set of valves per boiler { per Rule 6.6 as fitted 7.96 Pressure to which they are adjusted 225 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 ✓ Is oil fuel carried in the double bottom under boilers
 Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated yes
 Largest internal dia. of boilers 11'-9 23/32" Length 10'-6" Shell plates: Material S Tensile strength 29-33
 Thickness 1 1/16" Are the shell plates welded or flanged no Description of riveting: circ. seams { end DR inter. ✓
 long. seams TR. DBS (5 rivets) Diameter of rivet holes in { circ. seams 1 1/16" Pitch of rivets { 3 1/2" 8 3/8"
 Percentage of strength of circ. end seams { plate 66 rivets 44 Percentage of strength of circ. intermediate seam { plate 85.8 rivets 86.2
 Percentage of strength of longitudinal joint { plate 85.8 rivets 86.2 combined 88.7 Working pressure of shell by Rules 220
 Thickness of butt straps { outer 7/8" inner 1" No. and Description of Furnaces in each Boiler 2 cf.
 Material S Tensile strength 26-30 Smallest outside diameter 3'-5 1/2"
 Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 1/16" bottom 1/16" Description of longitudinal joint weld
 Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 226
 End plates in steam space: Material S Tensile strength 26-30 Thickness 1/16" Pitch of stays 14 1/2" x 15 7/8"
 How are stays secured D.N. Working pressure by Rules 223
 Tube plates: Material { front S back S Tensile strength { 26-30 Thickness { 1 1/16" 13/16"
 Mean pitch of stay tubes in nests 10.35 Pitch across wide water spaces 14 1/2" x 9 Working pressure { front 240 back 229
 Girders to combustion chamber tops: Material S Tensile strength 28-32 Depth and thickness of girder
 at centre 9 1/2" x 1 1/2" dble Length as per Rule 31.9" Distance apart 11 3/4" No. and pitch of stays
 in each 3 @ 7 1/2" Working pressure by Rules 224 Combustion chamber plates: Material S
 Tensile strength 26-30 Thickness: Sides 25/32 Back 25/32 Top 25/32 Bottom 25/32
 Pitch of stays to ditto: Sides 10" x 9 7/8" Back 9 3/4" x 9 7/8" Top 11 3/4" x 7 1/2" Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules 222 Front plate at bottom: Material S Tensile strength 26-30
 Thickness 1/16" Lower back plate: Material S Tensile strength 26-30 Thickness 1/16"
 Pitch of stays at wide water space 14 1/2" x 9 7/8" Are stays fitted with nuts or riveted over nuts
 Working Pressure 309 Main stays: Material S Tensile strength 28-32
 Diameter { At body of stay, 2 3/8 No. of threads per inch 6 Area supported by each stay 218"
 Working pressure by Rules 220 Screw stays: Material S Tensile strength 26-30
 Diameter { At turned off part, 1 7/8 No. of threads per inch 9 Area supported by each stay 96.25"



Working pressure by Rules 221 Are the stays drilled at the outer ends no Margin stays: Diameter 2" (At turned off part, or Over threads) 2"
 No. of threads per inch 9 Area supported by each stay 111 sq" Working pressure by Rules 222
 Tubes: Material S.D. Steel External diameter 3 1/4" Thickness 8 W.G. No. of threads per inch 9
 Pitch of tubes 4 1/2 x 4 1/2 Working pressure by Rules 227 Manhole compensation: Size of opening in 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 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 diameter of stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓
 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 casing gear ✓ Working pressure as per Rules ✓ 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

THE NORTH EASTERN MARINE ENGINEERING CO. (1930) LTD.
 The foregoing is a correct description,
John Nall Manufacturer.

Dates of Survey During progress of work in shops - - Are the approved plans of boiler and superheater forwarded herewith 12/26/39
while building During erection on board vessel - - (If not state date of approval.)
 Total No. of visits 1

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. "Aryll" Rpt 98087

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This Auxiliary Boiler has been made & installed under Special Survey in accordance with the approved Plan & the Requirements of the Rules.

The materials & workmanship are good & the boiler was found satisfactory under hydraulic test & under working conditions.

Survey Fee ... £ see Mehy Rpt. When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

R. C. Moffitt
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 9 FEB 1940
 Assigned See Sld. J.C. 32788