

# REPORT ON BOILERS.

Received at London Office APR - 2 1938

Date of writing Report 19 When handed in at Local Office 1141 1938 Port of NEWCASTLE-ON-TYNE

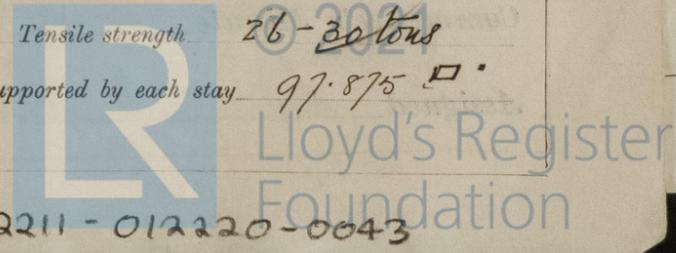
No. in Survey held at Walsend Date, First Survey 30 July 1937 Last Survey 29 March 1938

Reg. Book. on the T.S. "TASAUERA" (Number of Visits) Gross Tons Net

Master Built at Hariton Hill on Tees By whom built Furness Shipbuilding Co. Ltd Yard No. 285 When built 1938  
Engines made at Walsend By whom made North Eastern Marine Eng Co. Ltd. Engine No. 2895 When made 1938  
Boilers made at Walsend By whom made North Eastern Marine Eng Co. Ltd. Boiler No. 2895 When made 1938  
Nominal Horse Power 318 Owners Largo Shipping Co Port belonging to London

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

Manufacturers of Steel Steel Co of Scotland (Letter for Record S)  
 Total Heating Surface of Boilers 5130 Is forced draught fitted Yes Coal or Oil fired Oil  
 No. and Description of Boilers Two single ended - multitubular Working Pressure 180 lbs  
 Tested by hydraulic pressure to 320 lbs Date of test 25-1-38 No. of Certificate 757 Can each boiler be worked separately Yes  
 Area of Firegrate in each Boiler oil fired No. and Description of safety valves to each boiler Two spring loaded  
 Area of each set of valves per boiler { per Rule 16.5 " as fitted 22.08 " Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes  
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 3-0 Is oil fuel carried in the double bottom under boilers No  
 Smallest distance between shell of boiler and tank top plating 1-6 Is the bottom of the boiler insulated Yes  
 Largest internal dia. of boilers 15-6" Length 11-6" Shell plates: Material Steel Tensile strength 29-33 tons  
 Thickness 1 1/4" Are the shell plates welded or flanged No Description of riveting: circ. seams end L.D.R.  
 long. seams Treble Riveted S.B.S. Diameter of rivet holes in { circ. seams 1 5/16" Pitch of rivets { 3 3/4"  
 { long. seams 1 5/16" { 9"  
 Percentage of strength of circ. end seams { plate 65 Percentage of strength of circ. intermediate seam { plate -  
 { rivets 45.78 { rivets -  
 Percentage of strength of longitudinal joint { plate 85.4 Working pressure of shell by Rules 184 lbs  
 { rivets 89.41  
 { combined 88.7  
 Thickness of butt straps { outer 1" No. and Description of Furnaces in each Boiler Three Dighton  
 { inner 1 1/8" Material Steel Tensile strength 26-30 tons Smallest outside diameter 47 1/2"  
 Length of plain part { top - Thickness of plates { crown 19/32" Description of longitudinal joint weld  
 { bottom - { bottom - Dimensions of stiffening rings on furnace or c.c. bottom No Working pressure of furnace by Rules 182 lbs  
 End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 5/16" Pitch of stays 22" x 19 3/4"  
 How are stays secured Double nuts Working pressure by Rules 184.8 lbs  
 Tube plates: Material { front Steel Tensile strength { 26-30 tons Thickness { 15/16"  
 { back Steel { 11/16"  
 Mean pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 14 1/2" Working pressure { front 227 lbs  
 { back 190 lbs  
 Girders to combustion chamber tops: Material Steel Tensile strength 29-33 tons Depth and thickness of girder  
 at centre 9 x 2 @ 3/4" Length as per Rule 36" Distance apart 9" No. and pitch of stays  
 in each 2 @ 10 7/8" Working pressure by Rules 183.5 lbs Combustion chamber plates: Material Steel  
 Tensile strength 26-30 tons Thickness: Sides 3/4" Back 23/88" Top 3/4" Bottom 3/4"  
 Pitch of stays to ditto: Sides 10 7/8" x 9 1/4" Back 10" x 9 1/2" Top 10 7/8" x 9" Are stays fitted with nuts or riveted over Nuts  
 Working pressure by Rules 181 lbs Front plate at bottom: Material Steel Tensile strength 26-30 tons  
 Thickness 15/16" Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 7/8"  
 Pitch of stays at wide water space 14 1/2" x 9 1/2" Are stays fitted with nuts or riveted over Nuts  
 Working Pressure 208 lbs Main stays: Material Steel Tensile strength 28-32 tons  
 Diameter { At body of stay, 3" No. of threads per inch 6 Area supported by each stay 435 "   
 { or - Working pressure by Rules 180 lbs Screw stays: Material Steel Tensile strength 26-30 tons  
 { Over threads - Diameter { At turned off part, 1 3/4" No. of threads per inch 9 Area supported by each stay 97.875 "   
 { or - { Over threads -



Working pressure by Rules 185 lbs Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads } 1 7/8"  
 No. of threads per inch 9 Area supported by each stay 116.875 sq" Working pressure by Rules 183 lbs  
 Tubes: Material Stal 1.8 External diameter { Plain 2 1/2" Stay 2 1/2" Thickness { 9/16" + 3/8" No. of threads per inch 9  
 Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 216 lbs Manhole compensation: Size of opening in  
 END shell plate 16" x 12" 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" 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 None 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 - 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 foregoing is a correct description,  
 THE NORTH EASTERN MARINE ENGINEERING CO. LTD., Manufacturer.  
John Neill

Dates of Survey { During progress of work in shops - - } See Weekly Report Are the approved plans of boiler and superheater forwarded herewith Yes  
 while building { During erection on board vessel - - } Total No. of visits -

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "Boscan" Report No 95770.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under special survey, in accordance with the Rules and approved plan. The materials and workmanship are good, on completion they were tested by water pressure to 320 lbs per square inch and found tight and satisfactory; they have been fitted on board in an efficient manner, tried under steam and found satisfactory.

Survey Fee ... Charged on When applied for, 19  
 Travelling Expenses (if any) Ind. Rep. When received, 19

J. Seller  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 5 APR 1938  
 Assigned See J. E. Mearns Report

