

REPORT ON BOILERS.

No. 95797

Received at London Office JAN 7 1938

Reporting Report 24-12-1937 When handed in at Local Office 28/12/1937 Port of **NEWCASTLE-ON-TYNE**

Survey held at *Wallsend* Date, First Survey *14 May* Last Survey *21st Sept 1937*

on the *Steamer "KINGSWOOD"* (Number of Visits *13*) Tons {Gross *5038*
Net *3107*

Built at *Newcastle* By whom built *North Eastern Marine Eng Co. Ltd* Yard No. When built *1929-5*

Machinery made at *Wallsend* By whom made *North Eastern Marine Eng Co. Ltd* Engine No. *2690* When made *1929*

Boilers made at *Wallsend* By whom made *North Eastern Marine Eng Co. Ltd* Boiler No. *2901* When made *1937*

Indicated Horse Power Owners *Joseph Constantine S. S. Line. Ltd* Port belonging to *Middlesbrough*

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

Manufacturers of Steel *Appley- Lodingham Steel Co., Ltd., Steel Co of Scotland* (Letter for Record *S*)

Heating Surface of Boilers *1325 sq ft* Is forced draught fitted *no* Coal or Oil fired *Coal*

Kind and Description of Boilers *One single ended multitubular* Working Pressure *200 lbs*

Tested by hydraulic pressure to *350 lbs* Date of test *21-9-37* No. of Certificate *739* Can each boiler be worked separately

Number of Firegrate in each Boiler *35 sq ft* No. and Description of safety valves to each boiler *Two spring loaded*

Pressure of each set of valves per boiler {per Rule *7.7 sq ft*
as fitted *7.94 sq ft*} Pressure to which they are adjusted *205 lbs* Are they fitted with easing gear *Yes*

Distance of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Least distance between boilers or uptakes and bunkers or woodwork *1'-6"* Is oil fuel carried in the double bottom under boilers *no*

Least distance between shell of boiler and tank top plating *2'-3"* Is the bottom of the boiler insulated *Yes*

Least internal dia. of boilers *11'-9 3/8"* Length *10'-6"* Shell plates: Material *Steel* Tensile strength *29-33 tons*

Thickness *1 1/16"* Are the shell plates welded or flanged *no* Description of riveting: circ. seams {end *L.D.R.*
inter. *-*}

Seams *T.R. dbl straps* Diameter of rivet holes in {circ. seams *1 1/8"*
long. seams *1 1/8"*} Pitch of rivets {*3 1/4"*
8"}

Percentage of strength of circ. end seams {plate *65.5*
rivets *45.6*} Percentage of strength of circ. intermediate seam {plate *-*
rivets *-*}

Percentage of strength of longitudinal joint {plate *86.0*
rivets *87.0*
combined *89.3*} Working pressure of shell by Rules *204.5 lbs*

Thickness of butt straps {outer *13/16"*
inner *15/16"*} No. and Description of Furnaces in each Boiler *Two corrugated*

Material *Steel* Tensile strength *26-30* Smallest outside diameter *41 1/4"*

Thickness of plain part {top *-*
bottom *-*} Thickness of plates {crown *19/32"*
bottom *19/32"*} Description of longitudinal joint *weld*

Dimensions of stiffening rings on furnace or c.c. bottom *none* Working pressure of furnace by Rules *209.5 lbs*

Plates in steam space: Material *Steel* Tensile strength *26-30 tons* Thickness *1 1/4"* Pitch of stays *22" x 15"*

Are stays secured *Double nuts* Working pressure by Rules *205 lbs*

Plates: Material {front *Steel*
back *Steel*} Tensile strength {*26-30 tons*} Thickness {*1"*
3/4"}

Pitch of stay tubes in nests *8 7/8"* Pitch across wide water spaces *14 1/2"* Working pressure {front *210.5 lbs*
back *255.0 lbs*}

Stays to combustion chamber tops: Material *Steel* Tensile strength *29-33 tons* Depth and thickness of girder

Size *7 1/2" x 2 @ 3/4"* Length as per Rule *27"* Distance apart *10"* No. and pitch of stays

Quantity *2 @ 8"* Working pressure by Rules *202 lbs* Combustion chamber plates: Material *Steel*

Tensile strength *26-30 tons* Thickness: Sides *1/16"* Back *2 3/32"* Top *1/16"* Bottom *7/8"*

Dimensions of stays to ditto: Sides *10 x 8"* Back *9 1/2" x 9 3/4"* Top *10 x 8"* Are stays fitted with nuts or riveted over *nuts*

Working pressure by Rules *201 lbs* Front plate at bottom: Material *Steel* Tensile strength *26-30 tons*

Thickness *1"* Lower back plate: Material *Steel* Tensile strength *26-30 tons* Thickness *7/8"*

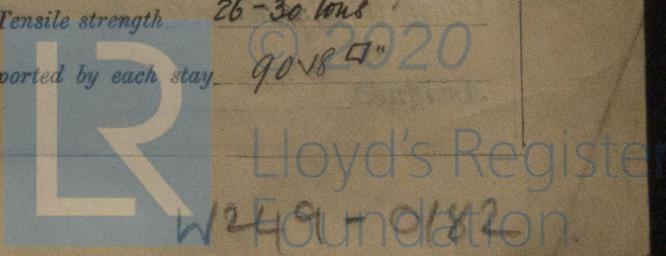
Dimensions of stays at wide water space *14 1/2" x 9 3/4"* Are stays fitted with nuts or riveted over *nuts*

Working Pressure *206 lbs* Main stays: Material *Steel* Tensile strength *29-33 tons*

Dimensions {At body of stay, *2 3/4"*
or *-*
Over threads *-*} No. of threads per inch *6* Area supported by each stay *330 lbs*

Working pressure by Rules *205 lbs* Screw stays: Material *Steel* Tensile strength *26-30 tons*

Dimensions {At turned off part, *-*
or *-*
Over threads *1 3/4"*} No. of threads per inch *9* Area supported by each stay *90 lbs*



Working pressure by Rules 201 lbs Are the stays drilled at the outer ends No Margin stays: Diameter At turned off part. -
 No. of threads per inch 9 Area supported by each stay 115.9 sq" Working pressure by Rules 214 lbs
 Tubes: Material S. D. Steel External diameter Plain 3 1/4" Thickness 89 No. of threads per inch 9
 Pitch of tubes 8 7/8" Working pressure by Rules 208.5 lbs Manhole compensation: Size of opening
 shell plate 20 1/8" x 16 3/8" Section of compensating ring 11 3/8" x 1 1/2" No. of rivets and diameter of rivet holes 32 @ 1 3/8"
 Outer row rivet pitch at ends 10" Depth of flange if manhole flanged 3 3/4" 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. ✓
 Internal diameter ✓ Working pressure by Rules ✓ Thickness of crown ✓ No. and diameter 279
 stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓
 How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and
 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
 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 at
 Rules ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test pres.
 tubes ✓ forgings and castings ✓ and after assembly in place ✓ Are drain coc
 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 ✓

The foregoing is a correct description,
 THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

John Neill

Dates of Survey 1927 During progress of work in shops -- May 14, 26, June 1, 7, 11, July 2, 23 Are the approved plans of boiler and superheater forwarded herewith Yes
 while building Aug. 11, 17, 24, Sep. 2, 7, 21. (If not state date of approval.)
 Total No. of visits 13.

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Same Vessel. No. Rpt No 8417

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, in accordance with the Rules and approved plan; the materials and workmanship are good, on completion it was tested to 350 lbs per square inch water pressure, fitted on board in an efficient manner, tried under steam and found satisfactory.

Survey Fee £ 9 : 0 : 0 When applied for 6 JAN 1938
 Travelling Expenses (if any) £ : : } When received, 1/2 1938
mk 23/2

J. S. Selles
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute See other two Rpt 95796
 Assigned

