

REPORT ON BOILERS.

No. 85781

27 MAY 1930

Received at London Office

Date of writing Report *26/5/30* When handed in at Local Office *26/5/30* Port of *Newcastle-on-Tyne*

No. in Survey held at Reg. Book. *Wallsend-on-Tyne* Date, First Survey *28 May 129* Last Survey *20 May 1930*

on the *New Steel S.S. Maplewood* (Number of Visits *—*) Gross Tons *4562* Net Tons *2788*

Master *Wallsend-on-Tyne* Built at *Willington Quay* By whom built *Northumberland Shipyard No. 416* When built *1930*

Engines made at *Wallsend-on-Tyne* By whom made *North Eastern Marine & S.S. Co. Ltd* Engine No. *2401* When made *1930*

Boilers made at *Wallsend-on-Tyne* By whom made *North Eastern Marine & S.S. Co. Ltd* Boiler No. *2401* When made *1930*

Nominal Horse Power *438* Owners *—* Port belonging to *—*

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *The Steel Coy of Scotland Ltd & Witkowitz Bergbau* (Letter for Record *und Eisenhütten-Gesellschaft*)

Total Heating Surface of Boilers *5294* Is forced draught fitted *Yes* Coal or Oil fired *Coal*

No. and Description of Boilers *Two single ended* Working Pressure *200 lbs*

Tested by hydraulic pressure to *350 lbs* Date of test *16-12-29* No. of Certificate *413* Can each boiler be worked separately *Yes*

Area of Firegrate in each Boiler *58 1/2* No. and Description of safety valves to each boiler *Two spring loaded*

Area of each set of valves per boiler *15.58* Pressure to which they are adjusted *205 lbs* Are they fitted with casing 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 *2'-0"* Is oil fuel carried in the double bottom under boilers *No*

Smallest distance between shell of boiler and tank top plating *2'-4"* Is the bottom of the boiler insulated *Yes*

Largest internal dia. of boilers *15'-6 1/4"* Length *11'-6"* Shell plates: Material *Steel* Tensile strength *29 to 33 tons*

Thickness *1 3/8"* Are the shell plates welded or flanged *No* Description of riveting: circ. seams *4"* inter. *4"*

long. seams *T.R.D.B.S.* Diameter of rivet holes in circ. seams *1 1/16"* Pitch of rivets *9 3/4"*

Percentage of strength of circ. end seams *64.8* Percentage of strength of circ. intermediate seam *85.25*

Percentage of strength of longitudinal joint *90* Working pressure of shell by Rules *202.5 lbs*

Thickness of butt straps *1 1/16"* No. and Description of Furnaces in each Boiler *Three corrugated (Brighton)*

Material *Steel* Tensile strength *26 to 30 tons* Smallest outside diameter *3'-8 1/4"*

Length of plain part *5/8"* Description of longitudinal joint *weld*

Dimensions of stiffening rings on furnace or c.c. bottom *None* Working pressure of furnace by Rules *206 lbs*

End plates in steam space: Material *Steel* Tensile strength *26-30 tons* Thickness *1 13/32"* Pitch of stays *1'-10" x 1'-9"*

How are stays secured *Nuts* Working pressure by Rules *200.6 lbs*

Tube plates: Material *Steel* Tensile strength *26 to 30 tons* Thickness *1"*

Mean pitch of stay tubes in nests *9 13/16"* Pitch across wide water spaces *14 3/4" x 8 1/2"* Working pressure *208.5 lbs*

Girders to combustion chamber tops: Material *Steel* Tensile strength *29 to 33 tons* Depth and thickness of girder *208 lbs*

at centre *2 @ 9" x 7/8"* Length as per Rule *2'-8"* Distance apart *11 1/8"* No. and pitch of stays *—*

in each *2 @ 9 1/2"* Working pressure by Rules *214 lbs* Combustion chamber plates: Material *Steel*

Tensile strength *26 to 30 tons* Thickness: Sides *25/32"* Back *3/4"* Top *25/32"* Bottom *1"*

Pitch of stays to ditto: Sides *9 1/2" x 11 1/8"* Back *10" x 9 1/8"* Top *9 1/2" x 11 1/8"* Are stays fitted with nuts or riveted over *Nuts*

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

Thickness *1"* Lower back plate: Material *Steel* Tensile strength *26 to 30 tons* Thickness *29/32"*

Pitch of stays at wide water space *14 3/4" x 9 1/8"* Are stays fitted with nuts or riveted over *Nuts*

Working Pressure *213 lbs* Main stays: Material *Steel* Tensile strength *28 to 32 tons*

Diameter: At body of stay *3/4"* No. of threads per inch *6* Area supported by each stay *462 sq"*

Working pressure by Rules *200.5 lbs* Screw stays: Material *Steel* Tensile strength *26 to 30 tons*

Diameter: At turned off part *1 1/8"* No. of threads per inch *9* Area supported by each stay *98.4 sq"*

Working pressure by Rules 216 lbs Are the stays drilled at the outer ends no Margin stays: Diameter 2" (At turned off part, or Over threads)

No. of threads per inch 9 Area supported by each stay 122.35" Working pressure by Rules 202.5 lbs

Tubes: Material S.D. Steel External diameter 3" Thickness 8 wls. 4 3/8" No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 204 lbs Manhole compensation: Size of opening in end 16" x 12" Section of compensating ring none No. of rivets and diameter of rivet holes none

Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 4 3/8" Steam Dome: Material none

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 North Eastern smoke tubes (Schmit) Tubes Weldless Steel Tube Pipe Manufacturers of W. D. Steel Internal diameter and thickness of tubes 1 1/4" x 2.5 mm

Number of elements 112 Material of tubes S.D. Steel Tensile strength 265 30 tns Thickness 4/8 Can the superheater be shut off and the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes

Area of each safety valve 3.1416 Are the safety valves fitted with casing gear yes Working pressure as per Rules 200 lbs Pressure to which the safety valves are adjusted 205 lbs Hydraulic test pressure: tubes 1500 lbs castings 600 lbs and after assembly in place 500 lbs Are drain cocks or valves fitted to free the superheater from water where necessary yes

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes THE NORTH EASTERN MARINE ENGINEERING CO., LTD. The foregoing is a correct description, W. D. Steel Manufacturer.

Dates of Survey See Mch Report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____

while building See Mch Report Total No. of visits _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 These Boilers have been built under special survey. materials & workmanship good, hydraulic tests satisfactory. They have been efficiently installed & examined under steam & safety valves adjusted.

Survey Fee ... £ : _____ When applied for, 192

Travelling Expenses (if any) £ : _____ When received, 192

William Butler
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 3 JUN 1930

Assigned See Mch Report attached

