

## REPORT ON WATER TUBE BOILERS.

No. 94924

Received at London Office APR 15 1937

Date of writing Report 19 When handed in at Local Office 14/4/37 Port of NEWCASTLE-ON-TYNE

No. in Survey held at *Wallsend* Date, First Survey *8/9/36* Last Survey *12/4/1* 1937  
 Reg. Bk. on the *SS "MULUBINBA"* (Number of Visits) Tons { Gross Net  
 Master Built at *Lith* By whom built *H. Robt. Ltd. No 234* When built *1937*  
 Engines made at *Wallsend* By whom made *North Eastern Marine Eng. Co. Ltd. No 2865* When made *1937*  
 Boilers made at *Renfrew* By whom made *Babcock & Wilcox Ltd.* When made *1937*  
 Registered Horse Power Owners *Newcastle & Hunter River Steam Ship Co. Ltd.* Port belonging to *Newcastle*

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel

(Letter for Record *S*) Date of Approval of plan *10/4/37* *aug 1936* Number and Description or Type of Boilers *Two, Babcock & Wilcox Type* Working Pressure *235 lbs* Tested by Hydraulic Pressure to *405 lbs* Date of Test *6-4-37* *Tested in place on ship*  
 No. of Certificate *-* Can each boiler be worked separately *-* Total Heating Surface of Boilers *4200 sq ft*  
 Is forced draught fitted *Yes* Area of fire grate (coal) in each Boiler *67 sq ft* Total grate area of boilers in vessel including Main and Auxiliary *154 sq ft* No. and type of burners (oil) in each boiler *Mechanical stokers (oil)* No. and description of safety valves on each boiler *2. Single High Lift* Area of each valve *3.14 sq in* Pressure to which they are adjusted *240 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 *18"* Height of Boiler *Yes* Width and Length *Yes*  
 Steam Drums:—Number in each boiler *Yes* Inside diameter *Yes* Material of plates *Yes* Thickness *Yes*  
 Range of Tensile Strength *Yes* Are drum shell plates welded or flanged *Yes* Description of riveting:—  
 Cir. seams *Yes* long. seams *Yes* Diameter of rivet holes in long. seams *Yes* Pitch of Rivets *Yes*  
 Lap of plate or width of butt straps *Yes* Thickness of straps *Yes* Percentage strength of long. joint:—Plate *Yes* Rivet *Yes*  
 Diameter of tube holes in drum *Yes* Pitch of tube holes *Yes* Percentage strength of shell in way of tubes *Yes*  
 If Drum has a flat side state method of staying *Yes* Depth and thickness of girders at centre (if fitted) *Yes* Distance apart *Yes* Number and pitch of stays in each *Yes* Working pressure by rules *Yes*  
 Steam Drum Heads or Ends:—Material *Yes* Thickness *Yes* Radius or how stayed *Yes*  
 Size of Manhole or Handhole *Yes* Water Drums:—Number in each boiler *Yes* Inside Diameter *Yes*  
 Material of plates *Yes* Thickness *Yes* Range of tensile strength *Yes* Are drum shell plates welded or flanged *Yes*  
 Description of riveting:—Cir. seams *Yes* long. seams *Yes* Diameter of Rivet Holes in long. seams *Yes* Pitch of rivets *Yes* Lap of plates or width of butt straps *Yes* Thickness of straps *Yes*  
 Percentage strength of long. joint:—Plate *Yes* Rivet *Yes* Diameter of tube holes in drum *Yes* Pitch of tube holes *Yes*  
 Percentage strength of drum shell in way of tubes *Yes* Water Drum Heads or Ends:—Material *Yes* Thickness *Yes*  
 Radius or how stayed *Yes* Size of manhole or handhole *Yes* Headers or Sections:—Number *Yes*  
 Material *Yes* Thickness *Yes* Tested by Hydraulic Pressure to *Yes* Material of Stays *Yes*  
 Area at smallest part *Yes* Area supported by each stay *Yes* Working Pressure by Rules *Yes* Tubes:—Diameter *Yes*  
 Thickness *Yes* Number *Yes* Steam Dome or Collector:—Description of Joint to Shell *Yes*  
 Percentage strength of Joint *Yes* Diameter *Yes* Thickness of shell plates *Yes* Material *Yes*  
 Description of longitudinal joint *Yes* Diameter of Rivet Holes *Yes* Pitch of Rivets *Yes* Working Pressure of shell by Rules *Yes*  
 Crown or End Plates:—Material *Yes* Thickness *Yes* How stayed *Yes*  
 SUPERHEATER. Type *B & W* Date of Approval of Plan *25-8-1936* Tested by Hydraulic Pressure to *405 lbs*  
 Date of Test *in place on ship 6-4-37* Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler *Yes*  
 Diameter of Safety Valve *2" Single H. Lift* Pressure to which each is adjusted *235 lbs* Is easing gear fitted *Yes*  
 Is a drain cock or valve fitted at lowest point of superheater *Yes* Number, diameter, and thickness of tubes *Yes*  
 Spare Gear. Tubes *32* Gaskets or joints:—Manhole *6* Handhole *910* Handhole plates *15*

The foregoing is a correct description,

Manufacturer.

Dates of Survey  
 During progress of work in shops - -  
 while building - -  
 During erection on board vessel - -

See inquiry Report

Is the approved plan of boiler forwarded herewith *Yes*Total No. of visits *Yes*

## GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

*These boilers have been fitted in the ship in an efficient manner, tested in place to 405 lbs water pressure; tried under steam and found satisfactory.*

Survey Fee ... £ *26* : *10* : When applied for, 19Travelling Expenses (if any) £ *charged at:* When received, 19*Glasgow.*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 25 MAY 1937

Assigned

*See Lth 76 1933a*

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