

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 Reg. Bk. Survey held at Wallsend Date, First Survey 8/19/36 Last Survey 12/4/1937
 on the "MULUBINBA" (Number of Visits) Tons { Gross Net }
 Master Lith Built at Lith By whom built H. Robb 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 10th 31st 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 (coal) No. and description of safety valves on each boiler 2. Simp 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 18" Width and Length 18"
Steam Drums:—Number in each boiler 1 Inside diameter 18" Material of plates Steel Thickness 1/2"
 Range of Tensile Strength 45,000 Are drum shell plates welded or flanged Yes Description of riveting:—
 Cir. seams Yes long. seams Yes Diameter of rivet holes in long. seams 1/4" Pitch of Rivets 2"
 Lap of plate or width of butt straps 1" Thickness of straps 1/2" Percentage strength of long. joint:—Plate 85% Rivet 85%
 Diameter of tube holes in drum 1/2" Pitch of tube holes 2" Percentage strength of shell in way of tubes 85%
 If Drum has a flat side state method of staying Yes Depth and thickness of girders at centre (if fitted) Yes Distance apart 18" Number and pitch of stays in each 18" 2" Working pressure by rules Yes
Steam Drum Heads or Ends:—Material Steel Thickness 1/2" Radius or how stayed Yes
 Size of Manhole or Handhole 18" **Water Drums:**—Number in each boiler 1 Inside Diameter 18"
 Material of plates Steel Thickness 1/2" Range of tensile strength 45,000 Are drum shell plates welded or flanged Yes
 Description of riveting:—Cir. seams Yes long. seams Yes Diameter of Rivet Holes in long. seams 1/4" Pitch of rivets 2" Lap of plates or width of butt straps 1" Thickness of straps 1/2"
 Percentage strength of long. joint:—Plate 85% Rivet 85% Diameter of tube holes in drum 1/2" Pitch of tube holes 2"
 Percentage strength of drum shell in way of tubes 85% **Water Drum Heads or Ends:**—Material Steel Thickness 1/2"
 Radius or how stayed Yes Size of manhole or handhole 18" **Headers or Sections:**—Number 1
 Material Steel Thickness 1/2" Tested by Hydraulic Pressure to 405 lbs Material of Stays Steel
 Area at smallest part 18" Area supported by each stay 18" Working Pressure by Rules Yes **Tubes:**—Diameter 1/2"
 Thickness 1/16" Number 32 **Steam Dome or Collector:**—Description of Joint to Shell Yes
 Percentage strength of Joint 85% Diameter 18" Thickness of shell plates 1/2" Material Steel
 Description of longitudinal joint Yes Diameter of Rivet Holes 1/4" Pitch of Rivets 2" Working Pressure of shell by Rules Yes
Crown or End Plates:—Material Steel Thickness 1/2" How stayed Yes

SUPERHEATER. Type 137 W Date of Approval of Plan 25-8-1936 Tested by Hydraulic Pressure to 405 lbs
 Date of Test 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 J.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 - - } Is the approved plan of boiler forwarded herewith Yes
 while building } During erection on board vessel - - - } Total No. of visits Yes
See bulky Report

GENERAL REMARKS (State quality of workmanship, opinions as to class, &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 : 0 When applied for, 19...
 Travelling Expenses (if any) £ Charged at Glasgow. When received, 19...

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

Committee's Minute TUE 25 MAY 1937
 Assigned See Lth 76. 1933a

