

REPORT ON WATER TUBE BOILERS.

No. 62070

Rpt. 5c.

Received at London Office

MAR. 6 1940

Date of writing Report 19th Feb 1940 When handed in at Local Office 2. 3. 1940 Port of Glasgow

No. in Survey held at Kennew Date, First Survey 1939 June 2nd Last Survey 19th Feb 1940

Reg. Bk. on the Boiler Parts 1362 for Swan Hunter & Wigham Richardson Yard No 1640 Tons Number of Visits 52 Gross 9031 Net 4463

Master Built at By whom built When built

Engines made at By whom made When made

Boilers made at Kennew By whom made Babcock & Wilcox Ltd When made 1940

Registered Horse Power Owners Port belonging to

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

Letter for Record) Date of Approval of plan 19-6-39, 6-4-39 Various data Number and Description or Type of Boilers Three—Babcock & Wilcox Type Working Pressure 450 lb Tested by Hydraulic Pressure to 725 lb { DRUMS 12 21-12-39 Date of Test 6-11-39 27-11-1039

No. of Certificate Can each boiler be worked separately. Total Heating Surface of Boilers 17895 sq ft

Is forced draught fitted Area of fire grate (coal) in each Boiler 154 sq ft Total grate area of boilers in vessel including Main and Auxiliary 462 sq ft No. and type of burners (oil) in each boiler No. and description of safety valves on each boiler One—2 1/2" Double Improved Hep. Lift Area of each valve 4.9 sq Pressure to which they are adjusted Load as per plan 450

Are they fitted with easing gear In case of donkey boilers state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork Height of Boiler 23'6" approx Width and Length 21'7" x 18'6"

Steam Drums:—Number in each boiler one Inside diameter 3'6" Material of plates Yull steel Thickness 1 5/8"

Range of Tensile Strength 28/32 tons Are drum shell plates welded or flanged Fusion Welded Description of riveting:—

Cir. seams long. seams Diameter of rivet holes in long. seams Pitch of Rivets

Lap of plate or width of butt straps Thickness of straps Percentage strength of long. joint:—Plate Rivet

Diameter of tube holes in drum 4 1/4" max Pitch of tube holes 4 1/4" Percentage strength of shell in way of tubes 43.58 min

If Drum has a flat side state method of staying Depth and thickness of girders at centre (if fitted) Distance apart Number and pitch of stays in each Working pressure by rules

Steam Drum Heads or Ends:—Material Yull steel Thickness 1 7/16" Radius or how stayed 3'0"

Size of Manhole or Handhole 11" x 15" **Water Drums:**—Number in each boiler Inside Diameter

Material of plates Thickness Range of tensile strength Are drum shell plates welded or flanged Description of riveting:—Cir. seams long. seams Diameter of Rivet Holes in long. seams Pitch of rivets Lap of plates or width of butt straps Thickness of straps

Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum Pitch of tube holes

Percentage strength of drum shell in way of tubes **Water Drum Heads or Ends:**—Material Thickness

Radius or how stayed Size of manhole or handhole **Headers or Sections:**—Number 27

Material S.D. Steel Thickness 3/4 x 5/8 Tested by Hydraulic Pressure to 725 lb Material of Stays

Area at smallest part Area supported by each stay Working Pressure by Rules 450 lb Tubes:—Diameter 4" x 1 1/16"

Thickness 2, 4 x 9 L.S.G. Number 1005 27 @ 4 1/16" **MUD DRUM** No PER BOILER 1

Percentage strength of Joint Diameter 6" x 6" (inside) Thickness of shell plates 3/4" Material Steel

Description of longitudinal joint Solid drawn Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell by Rules 450 lb **Crown or End Plates:**—Material Thickness How stayed

SUPERHEATER. Type Babcock & Wilcox Date of Approval of Plan 8/7/39 Tested by Hydraulic Pressure to 725 lb

Date of Test Box only - 4-8-1-40 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 1/2" Imp. Hep. Lift Pressure to which each is adjusted Load as per plan 450 Is easing gear fitted

Is a drain cock or valve fitted at lowest point of superheater Yes Number, diameter, and thickness of tubes 90-1 1/2" x 8 L.S.G.

Spare Gear. Tubes 25-4" SECTION TUBES Gaskets or joints:—Manhole 8-Gaskets Handhole 1962 @ 4 1/16" Sq Handhole plates 12 @ 4 1/16" Sq

25-1 1/2" RETURN 24-1 1/2" S/HTR 6-3 3/4" 90-3 3/8" 10-3 3/4" Sq

The foregoing is a correct description,

Dates of Survey } During progress of 1939 June 2, 6, 8, 9, 19, 20, 28, July 7, 11, Aug 8, 9, 14, 22, 29 Sept. 4, 11, 12, 18, 20, 27, 29, Oct. 3, 11, 16, 18, 23, 24, 27, 30, 31, Nov. 3, 7, 8, 14, 19, 21, 22, 27, 28, 1940 Jan 4, 8, 10, Feb. 12, 19

while building } During erection on board vessel

In the approved plan of boiler forwarded herewith Yes

Duplicate of Bk 1333 Sq. net 60609

Total No. of visits 52

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boiler parts have been manufactured under Special Survey in accordance with the Society's Rules and approved plans. They have been despatched to Newcastle district for completion and installation in Swan Hunter & Wigham Richardson Yard No 1640

Survey Fee N.B. Fee 42-3-0 When applied for, At Nure on completion

Travelling Expenses (if any) 24-2-0 When received, 19

Committee's Minute GLASGOW 5 MAR 1940

Assigned TRANSMIT TO LONDON

Engineer Surveyor to Lloyd's Register of Shipping.

For Completion Rpt. see Newcastle on Tyne Report 5c. attached hereto.

See Nure. J.C. 99305

Lloyd's Register Foundation

003154-003151-0196