

REPORT ON WATER TUBE BOILERS.

No. 2576

Received at London Office

6 AUG 1935

Writing Report 29th July 1935 When handed in at Local Office 1st August 1934 Port of Barrow

in Survey held at Barrow Date, First Survey Last Survey 25th July 1935

Bk. on the Y. L. L. Orion (bickers-Armstrongs Ltd 40697) Number of Visits Tons { Gross 23371
Net 14098

Built at Barrow By whom built bickers-Armstrongs Ltd When built 1935

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usual Horse Power 4912 Owners Orient Steam Navigation Co. Ltd Port belonging to London

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Eng. & Shipbuilding Co. Ltd. 1935

er for Record 3 Date of Approval of plan 2/3/34, 22/3/34, 24/4/34, 11/6/34 Number and Description or Type

Boilers Two Bickers & Wilson Type Working Pressure 450 lb. Tested by Hydraulic Pressure to 725 lb. Date of Test 8 March 1935

of Certificate 460 Can each boiler be worked separately Yes Total Heating Surface of Boilers 7140 sq ft

forced draught fitted Yes Area of fire grate (coal) in each Boiler Total grate area of boilers in vessel including

and Auxiliary No. and type of burners (oil) in each boiler Four Hall's and Howden No. and description of safety valves on

boiler Double spring loaded high lift Area of each valve 9.14.16.5" Pressure to which they are adjusted 450 lb

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

least distance between boilers or uptakes and bunkers or woodwork 2'-6" Height of Boiler 14'-3" Width and Length 16'-7" x 14'-9"

in Drums:—Number in each boiler One Inside diameter 3'-6" Material of plates Mild Steel Thickness 1 5/8"

ie of Tensile Strength 28/32 tons Are drum shell plates welded or flanged No Description of riveting:—

seams Dr. lap long. seams Solid forging Diameter of rivet holes in long. seams Pitch of Rivets

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

meter of tube holes in drum 4'18" Pitch of tube holes 4'14" Percentage strength of shell in way of tubes 43.1

Drum has a flat side state method of staying Depth and thickness of girders at centre

itted) Distance apart Number and pitch of stays in each Working pressure

ules Steam Drum Heads or Ends:—Material Steel Thickness 1 7/8" Radius as shown stayed 3'-0"

of Manhole on Handhole 15" x 11" MUD Drums:—Number in each boiler One Inside Diameter 6 x 6 Square

erial of plates Steel SA Thickness 3/4" nominal Range of tensile strength 26/30 tons Are drum shell plates welded

anged No Description of riveting:—Cir. seams long. seams Diameter of Rivet Holes in

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

ius or how stayed Size of manhole or handhole Headers or Sections:—Number 120

erial Steel SA Thickness 1/16" nominal Tested by Hydraulic Pressure to 725 lb. Material of Stays

at smallest part Area supported by each stay Working Pressure by Rules 450 lb. Tubes:—Diameter 1 13/16"

kness 4 x 9 lbs. Number 400 Steam Dome or Collector:—Description of Joint to Shell

percentage strength of Joint Diameter Thickness of shell plates Material

ription of longitudinal joint Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell

Rules Crown or End Plates:—Material Thickness How stayed

ERHEATER. Type B. Interdeck Date of Approval of Plan 11/6/34 Tested by Hydraulic Pressure to 725 lb

ie of Test 10/10/34 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes

meter of Safety Valve 2" Pressure to which each is adjusted 440 lb. Is easing gear fitted Yes

drain cock or valve fitted at lowest point of superheater Yes Number, diameter, and thickness of tubes 80-1 1/2-8 lbs.

ure Gear. Tubes 227 Gaskets or joints 9 Manhole 100% Handhole 100% Handhole plates 10 lbs. 30 lbs. 4 lbs. 10 lbs.

6 off each for Superheater

VICKERS-ARMSTRONGS LTD.

The foregoing is a correct description,

A. Mitchell

Manufacturer.

ates During progress of 1934 June 7, 19, 20, July 23, 24, Sept 4, 7, 25, Oct 24, 10, 19, 23 Is the approved plan of boiler forwarded herewith Yes

urvey work in shops - - - Nov 6, 10, 26, Dec 14, Jan 7, 28, Feb 21, 22, 26, Mar 5, 8.

ile During erection on Oct 9, 12, 17, May 1, 15, 21, June 1, 4, 5, 17, July 24, 28, 30, 15 Total No. of visits 39

ding board vessel - - -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special

Survey to the approved plans and the Rules. They have been efficiently mounted, tested and fitted on

board and their safety valves adjusted under steam (Please also see Glasgow Report 4058309A)

Survey Fee ... Included in: When applied for, 1st August 1935

Travelling Expenses (if any) £ Machinery for When received, 2nd August 1935

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 9 AUG 1935

TUE. 13 AUG 1935

signed

See Rev. J.E. 2576

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