

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 1935 Port of Barrow

in Survey held at Barrow Date, First Survey 7th June 1934 Last Survey 25th July 1935

Bk. Y.L.S. "Orion" (Vickers-Armstrongs Ltd No 697) Number of Visits 39 Tons { Gross 23371
Net 14098

on the Y.L.S. "Orion" (Vickers-Armstrongs Ltd No 697) Built at Barrow By whom built Vickers-Armstrongs Ltd When built 1935

made at Barrow By whom made Vickers-Armstrongs Ltd When made 1935

made at Barrow By whom made Vickers-Armstrongs Ltd When made 1935

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

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel English Steel Corporation, A. Whittle & Sons

for Record S Date of Approval of plan 2/3/34, 22/3/34, 24/4/34 Number and Description or Type Four Babcock & Wilcox type

Working Pressure 450 lb Tested by Hydraulic Pressure to 725 lb Date of Test 1st March

of Certificate 458 & 459 Can each boiler be worked separately Yes Total Heating Surface of Boilers 29860 sq ft

forced draught fitted Yes Area of fire grate (coal) in each Boiler 4.0686 sq ft Total grate area of boilers in vessel including and Auxiliary Sea Holland-Howden

No. and type of burners (oil) in each boiler double spring loaded high lift No. and description of safety valves on boiler 4.0686 sq ft 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 Yes

least distance between boilers or uptakes and bunkers or woodwork 20'-9" Height of Boiler 20'-9" Width and Length 14'-8" x 20'-10"

Drums:—Number in each boiler One Inside diameter 3'-6" Material of plates mill steel forging Thickness 1 7/8"

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

seams dr. lap long. seams forging Diameter of rivet holes in long. seams Yes Pitch of Rivets Yes

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 4 1/8" Pitch of tube holes 1 1/4" Percentage strength of shell in way of tubes 43.1%

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

Distance apart Yes Number and pitch of stays in each Yes Working pressure Yes

Steam Drum Heads or Ends:—Material Steel Thickness 1 1/4" Radius or how stayed 3'-0"

of Manhole or Handhole 15" x 11" Water Drums:—Number in each boiler One Inside Diameter 6" x 6" (Square)

Material of plates Steel SA Thickness 3/4 nominal Range of tensile strength 26/30 ton Are drum shell plates welded Yes

Anged Yes Description of riveting:—Cir. seams Yes long. seams Yes Diameter of Rivet Holes in Yes

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

Size of manhole or handhole Yes Headers or Sections:—Number 360 total

Material Steel SA Thickness 7/16 nominal Tested by Hydraulic Pressure to 725 lb Material of Stays Yes

at smallest part Yes Area supported by each stay Yes Working Pressure by Rules 450 lb Tubes:—Diameter 1 3/4"

Thickness 4 x 9 1/2 x 5 1/2 Number 1355 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 Yes

Rules Yes Crown or End Plates:—Material Yes Thickness Yes How stayed Yes

SUPERHEATER. Type Interdual Date of Approval of Plan 18/6/34 Tested by Hydraulic Pressure to 725 lb

of Test 19/10/34, 6/11/34, 9/11/34 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes

diameter of Safety Valve 3" 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 48-1 1/2"-8 1/2 lb

ure Gear. Tubes 227 Gaskets or joints:—Manhole 100% Handhole 100% Handhole plates 30 in. Handhole drums 10 in. plates 10 in.

6 ft each length for superheater For.

VICKERS-ARMSTRONGS LTD.

The foregoing is a correct description,

A. Mitchell

Manufacturer.

During progress of work in shops:—1934. June 7, 19, 29, July 23, 24, Sept 4, 7, 15, Oct 2, 4, 10, 19, 22, Nov. 6, 9, 26—Decr. 11, Jan. 7, 28, Feb. 21, 22, 26, Mar. 5 Is the approved plan of boiler forwarded herewith Yes

During erection on board vessel:—8. Apr. 8, 12, 17, May 1, 15, 24, June 1, 4, 5, 17, July 2, 4, 8, 10, 15 Total No. of visits 39

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 No 55309)

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

Travelling Expenses (if any) noy. pa: When received, 2nd Aug 1935

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 9 AUG 1935

TUE. 13 AUG 1935

signed

See Rev. 2576



© 2020

Lloyd's Register of Shipping

004285-004291-0079