

REPORT ON WATER TUBE BOILERS.

No. 41970

Received at London Office

WED. MAY. 31 1922

Date of writing Report 29. 5. 1922 When handed in at Local Office 29. 5. 1922 Port of Glasgow

No. in Survey held at Dumbarton Date, First Survey 9-2-22 Last Survey 19-5-1922
 Reg. Bk. on the Fire float Harbour tug (by name Murrayweather) Number of Visits 10 Gross Tons
 Master TWIN Built at London By whom built Edwards & Co 2789 When built 1922
 Engines made at Newbury By whom made Plenty & Son L^d N^o 2478 When made 1922
 Boilers made at Dumbarton By whom made Wm Denny & Bros. (50,853) When made 1922
 Registered Horse Power _____ Owners _____ Port belonging to _____

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel D. Colville & Sons
 (Letter for Record (S)) Date of Approval of plan 6/1/22 Number and Description or Type of Boilers one narrow water tube Working Pressure 210 Tested by Hydraulic Pressure to 365 Date of Test 12/5/22
 No. of Certificate 10055 Can each boiler be worked separately Total Heating Surface of Boilers 2000 #
 Is forced draught fitted yes Area of fire grate (coal) in each Boiler _____ Total grate area of boilers in vessel including Main and Auxiliary _____ No. and type of burners (oil) in each boiler 3 Kernode No. and description of safety valves on each boiler 1 pair direct spring Area of each valve 7.07"² Pressure to which they are adjusted _____
 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 10'-11" Width and Length 11'-7" x 7'-8"
Steam Drums:—Number in each boiler one Inside diameter 3'-2" Material of plates steel Thickness 13/32
 Range of Tensile Strength 28 to 32 x 26 to 30 Are drum shell plates welded or flanged no Description of riveting:—
 Cir. seams lap double long diam. of rivet holes in long. seams 19/32 Pitch of Rivets 2 7/8
 Lap of plate or width of butt straps 6 9/8 Thickness of straps 5/16 x 1 1/2 Percentage strength of long. joint:—Plate 79.4% Rivet 78.6%
 Diameter of tube holes in drum 1 3/8 x 1 1/8 Pitch of tube holes 1 1/16 x 1 1/16 Percentage strength of shell in way of tubes 33%
 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 215
Steam Drum Heads or Ends:—Material steel Thickness 3/4 Radius or how stayed 2" 5"
 Size of Manhole or Handhole 16" x 12" **Water Drums:**—Number in each boiler 2 Inside Diameter 17" x 22 3/4"
 Material of plates steel Thickness bottom 9/16, top 1 1/8 Range of tensile strength 26 to 30 Are drum shell plates welded or flanged no Description of riveting:—Cir. seams lap single long. seams lap double diam. of Rivet Holes in long. seams 29/32 Pitch of rivets 2 5/8 Lap of plates or width of butt straps 1 1/2 Thickness of straps 1 1/2
 Percentage strength of long. joint:—Plate 68.5 Rivet 70.6 Diameter of tube holes in drum 1 3/8 x 1 1/8 Pitch of tube holes 1 1/16 x 1 1/16
 Percentage strength of drum shell in way of tubes 33% **Water Drum Heads or Ends:**—Material steel Thickness 1/16
 Radius or how stayed 2 1/2" min 5" max Size of manhole or handhole 15" x 11" **Headers or Sections:**—Number _____
 Material _____ Thickness _____ Tested by Hydraulic Pressure to _____ Material of Stays _____
 Area at smallest part _____ Area supported by each stay _____ Working Pressure by Rules _____ **Tubes:**—Diameter 1 3/8 x 1 1/8
 Thickness 13/14 L.S.S. Number 1078 **Steam Dome or Collector:**—Description of Joint to Shell none
 Percentage strength of Joint _____ Diameter _____ Thickness of shell plates _____ Material _____
 Description of longitudinal joint _____ Diameter of Rivet Holes _____ Pitch of Rivets _____ Working Pressure of shell by Rules _____
Crown or End Plates:—Material _____ Thickness _____ How stayed _____

SUPERHEATER. Type none Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____
 Date of Test _____ Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler _____
 Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is easing gear fitted _____
 Is a drain cock or valve fitted at lowest point of superheater _____ Number, diameter, and thickness of tubes _____
 Spare Gear. Tubes 70 Gaskets or joints:—Manhole 6 Handhole _____ Handhole plates _____

The foregoing is a correct description,
 For WILLIAM DENNY & BROTHERS, LTD
 Wm. Denny & Brothers, Ltd. Manufacturer.

Dates of Survey } During progress of 1922 Feb 9, Mar 3, 6, 8, 28, Apr 12, 21, May 9, 12, 19. Is the approved plan of boiler forwarded herewith yes
 while } During erection on }
 building } board vessel }
 Total No. of visits 10

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This boiler has been built under special survey the materials and workmanship are of good description. The boiler has been forwarded to London when it will be fitted on board the vessel. (See London letters 9/1/22, 17/2/22, 24/4/22, 4/5/22)

Survey Fee ... £ 13 : 6 : When applied for, 30. 5. 1922
 Travelling Expenses (if any) £ : : When received, 29/6/22

Committee's Minute _____
 Assigned _____
 GLASGOW 30 MAY 1922
 TRANSMIT TO LONDON
 A. McKeand © 2021
 Engineer Surveyor to Lloyd's Register of Shipping.
 FRI. 8 DEC. 1922
 Lloyd's Register Foundation
 006332-006342-0158