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D.O.

REPORT ON WATER TUBE BOILERS.

No. 20259.

23 MAY 1950

Received at London Office.

Date of writing Report 18th MAY 1950. When handed in at Local Office 22nd MAY 1950. Port of SOUTHAMPTON.
No. in Survey held at SOUTHAMPTON. Date, First Survey 22nd FEB 1949. Last Survey 20th APRIL 1950.
Reg. Book. 13484. on the T.S.T.S. ISLE OF SARK. (Number of Visits 11.) Gross 2188. Net 831.
Built at DUMBERTON. By whom built W. DENNY & BROS. L^{td}. Yard No. 1257. When built 1932.
Engines made at DUMBERTON. By whom made W. DENNY & BROS. L^{td}. Engine No. 1014. When made 1932.
Boilers made at DUMBERTON. By whom made W. DENNY & BROS. L^{td}. Boiler No. ✓. When made 1932.
Nominal Horse Power 1086 M.H.P. Owners BRITISH TRANSPORT COMMISSION. Port belonging to SOUTHAMPTON.

WATER TUBE BOILERS MAIN, AUXILIARY, OR PORTABLE. Manufacturers of Steel. ✓

Date of Approval of plan ✓. No. and Description or Type of Boilers 2 - YARROW 3 DRUM W.T. Working Pressure 250 lb/sq. in. Tested by Hydraulic Pressure to 425 lb/sq. in. Date of Test ✓.
No. of Certificate ✓. Can each boiler be worked separately YES. Total Heating Surface of Boilers 10,000 sq. ft. ✓.
Is forced draught fitted YES. Area of Fire Grate (coal) in each Boiler ✓. No. and description of safety valves on each boiler 2 - 3 1/2" IMPROVED HIGH LIFT DOUBLE SEATING. Area of each set of valves per boiler ✓. Pressure to which they are adjusted 250 lb/sq. in. 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 3'-6". Height of boiler 12'-9 1/2".
Width and length 16'-9 1/4" x 11'-5 1/4". Steam Drums: Number in each boiler ONE. Inside diameter 4'-6". Thickness of plates 1 1/8" & 5/8". Range of tensile strength TUBE PLATE 26-30 TONS/sq. in. Are drum shell plates welded or flanged ✓. If fusion welded, state name of welding firm ✓. Have all the requirements of the Rules for Class I vessels been complied with ✓. Description of riveting: Circ. seams DOUBLE RIVETED LAP long. seams DOUBLE BUTT STRAP. Diameter of rivet holes in long. seams 13/16". Pitch of rivets 3.932". Thickness of straps 1/2". Percentage strength of long. joint: Plate 68.7%. Rivet 52.4%. Diameter of tube holes in drum 1 1/4" & 1 3/4". Pitch of tube holes VARIOUS. Percentage strength of shell in way of tubes AS APPROVED. Steam Drum Ends: Range of tensile strength 26-30 TONS/sq. in. Thickness of plates 1 1/4" & 1 1/8". Radius 4'-6". Size of manhole 16" x 12". Water Drums: Number in each boiler TWO. Inside diameter 2'-10". Thickness of plates 5/8" & 1 1/8". Range of tensile strength 26-30 TONS/sq. in. Are drum shell plates welded or flanged ✓. If fusion welded, state name of welding firm ✓. Have all the requirements of the Rules for Class I vessels been complied with ✓. Description of riveting: Circ. seams SINGLE RIVETED LAP long. seams DOUBLE BUTT STRAP. Diameter of rivet holes in long. seams 13/16". Pitch of rivets 3 1/2". Thickness of straps 1/2". Percentage strength of long. joint: Plate 76.7%. Rivet 78.6%. Diameter of tube holes in drum 1 1/4" & 1 3/4". Pitch of tube holes VARIOUS. Percentage strength of drum shell in way of tubes AS APPROVED. Water Drum Ends: Range of tensile strength 26-30 TONS/sq. in. Thickness of plates 7/8". Radius 34". Size of manhole 16" x 12".
Headers or Sections: Number ✓. Material 1 1/4" ✓. Thickness ✓. Tested by hydraulic pressure to ✓. Tubes: Diameter EXT. 1 1/4" & 1 3/4". Thickness 10.811, 8.656. Number 1792, 1128, 112 REPAIR. Steam Dome or Collector: Description of joint to shell ✓. Inside diameter ✓. Thickness of shell plates ✓. Range of tensile strength ✓. Description of longitudinal joint ✓. If fusion welded, state name of welding firm ✓. Have all the requirements for the Rules for Class I vessels been complied with ✓. Diameter of rivet holes ✓. Pitch of rivets ✓. Thickness of straps ✓. Percentage strength of long. joint: plate ✓. rivet ✓.
Crown or End Plates: Range of tensile strength ✓. Thickness ✓. Radius or how stayed ✓. SUPERHEATER, Drums or Headers: Number in each boiler NONE. Inside diameter ✓. Thickness ✓. Material ✓. Range of tensile strength ✓. Are drum shell plates welded or flanged ✓. If fusion welded, state name of welding firm ✓. Have all the requirements of the Rules for Class I vessels been complied with ✓. Description of riveting: Circ. seams ✓. long. seams ✓. Diameter of rivet holes in long. seams ✓. Pitch of rivets ✓. 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 ✓. Drum Heads or Ends: Thickness ✓. Range of tensile strength ✓. Radius or how stayed ✓. Size of manhole or handhole ✓. Number, diameter, and thickness of tubes ✓. 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 ✓. No. and description of safety valves ✓. Area of each set of valves ✓. Pressure to which they are adjusted ✓. Is easing gear fitted ✓.
Spare Gear. Has the spare gear required by the Rules been supplied. YES.

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of work in shops - ✓
while building } During erection on board vessel - ✓
Is the approved plan of boiler forwarded herewith. YES.
Total No. of visits ✓.

Is this boiler a duplicate of a previous case. NO. If so, state vessel's name and report No. ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been examined throughout and their scantlings checked and found to be in accordance with the approved drawings. The workmanship is good and materials have been tested to M.O.T. requirements.

Survey Fee ... £ : When applied for 19.
Travelling Expenses (if any) £ ✓ : When received 19.

Date

Committee's Minute

see minute on Rpt. 9

Engineer Surveyor to Lloyd's Register of Shipping.

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