

# REPORT ON WATER TUBE BOILERS.

Received at London Office.

35 JUL 1947

Date of writing Report 16th May, 1947 When handed in at Local Office 27th May, 1947 Port of Baltimore, Maryland  
 No. in Survey held at Baltimore, Maryland Date, First Survey March 4th, Last Survey March 20th, 1947  
 Reg. No. 71601 on the S.S. "DAULTON MANN" (Number of Visits 4) Gross Tons 7176 Net Tons 4380  
 Built at Richmond, California By whom built Permanente Metals Corporation When built 1944  
 Engines made at Portland, Oregon By whom made Willamette Iron and Steel Corporation When made 1944  
 Boilers made at Los Angeles, California By whom made Western Pipe and Steel Company When made 1944  
 Nominal Horse Power 644.8 Owners Scindia Steam Navigation Company Port belonging to Bombay

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Carnegie Steel Company

Date of Approval of plan - Number and Description or Type of Boiler 2 W.T. Cross drum Working Pressure 240 lbs. Tested by Hydraulic Pressure to 375 lbs. Date of Test 3-13-44

No. of Boilers 446 and 484 Can each boiler be worked separately Yes Total Heating Surface of Boilers 9704 square feet + 529 sq ft

Is forced draught fitted Yes Area of fire grate (coal) in each Boiler - No. and description of safety valves on each boiler

each boiler One twin Consolidated 4" Area of each set of valves per boiler { per rule 22.9 square inches as fitted 25.12 square inches Pressure to which they are adjusted 240 lbs. Are they fitted with easing gear Yes 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 16' 5 5/8"

Width and Length 14' 7 1/4" x 18' 7 1/2" Steam Drums:—Number in each boiler One Inside diameter 48 7/8"

Thickness of plates 15/16" Range of Tensile Strength 70,000-82,000 Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Western Pipe and Steel Company Have all the requirements of the rules for Class I vessels been complied with Built under A.E.S. & U.S.C.G. Description of riveting:—Cir. 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 4 1/64" Pitch of tube holes 7"

Percentage strength of shell in way of tubes 42.5% Steam Drum Heads or Ends:—Range of tensile strength 60,000-70,000

Thickness of plates 15/16" Radius 38" Size of manhole or handhole 12" x 16" Water Drums:—Number in each boiler - Inside Diameter Square Thickness of plates 3/4" Range of tensile strength 60,000-70,000 Are drum shell plates welded or flanged Solid drawn If fusion welded, state name of welding firm - Have all the requirements of the rules for Class I vessels been complied with Built under ABS & USCG Description of riveting:—Cir. seams - long. seam -

Diameter of rivet holes in long. seams - Pitch of rivets - Thickness of straps - strength of long. joint:—Plate - Rivet - Diameter of tube holes in header 4 1/32" Pitch of tube holes 7"

length of drum shell in way of tubes - Water Drum Heads or Ends:—Range of Tensile strength - Radius or how stayed - Size of manhole or handhole -

Headers or Sections:—Number 22 Material Steel Thickness 9/16" Tested by Hydraulic Pressure to 375 lbs.

Tubes:—Diameter 2" and 4" Thickness 10 and 6 B.W.G. Number 602 and 44 Steam Dome or Collector:—Description of Join 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 of 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 Two Inside Diameter 6" square

Thickness 5/8" Material Steel Range of tensile strength 60,000 - 70,000 Are drum shell plates welded or flanged forged If fusion welded, state name of welding firm - Have all the requirements of the rules for Class I vessels been complied with Built under ABS & USCG Description of riveting:—Cir. 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 2 1/64" Pitch of tube holes 3 3/4" 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 22-2" 10 B.W.G.

Tested by Hydraulic Pressure to 375 lbs. Date of Test 1-29-44 Is a safety valve fitted to each section of the superheater which can be shut off from the boiler Yes No. and description of Safety Valves One-high lift Area of each set of valves 1.76 square inches Pressure to which they are adjusted 230 lbs. Is easing gear fitted No

Spare Gear. Has the spare gear required by the rules been supplied No (Valve lid for main feed check valve still to supply)

The foregoing is a correct description,

Manufacturer.

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

Is this boiler a duplicate of a previous case Yes If so, state vessel's name and report No. "CHELATROS" Balt. Rpt. 8437

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The two W.T. boilers described above have, together with all mountings, been opened up, examined throughout, placed in order, and again examined under steam and the safety valves adjusted. It is the opinion of the undersigned that the workmanship is good, the boilers well installed and suitable to be classed with this Society with a record of BS 3-47.

Survey Fee £ 115.00 When applied for, 17th May 1947  
 Travelling Expenses (if any) £ : - : When received, 19

Committee's Minute Assigned 2 W T B (NPT) 240 lbs. NEW YORK JUN 4 1947 J.G.D.

*John Newitt*  
 Engineer Surveyor to Lloyd's Register of Shipping.