

REPORT ON WATER TUBE BOILERS.

No. 14895

Received at London Office
 Date of writing Report 2nd Dec. 1958 When handed in at Local Office 1958 Port of TRIESTE
 No. in Survey held at Trieste Date, First Survey See Rpt. 4a Last Survey 1958
 Reg. Book. 405 on the "ESSO SOUTHAMPTON" (Number of Visits 12) Gross 23457 Tons
 Net 11
 Built at Trieste By whom built C.R.D. Adriatico Yard No. 1839 When built 1958 - 11
 Engines made at Trieste By whom made C.R.D. Adriatico Engine No. 316/317 When made 1958
 Boilers made at Glasgow & Trieste By whom made Babcock & Wilcox & C.R.D. Adriatico Boiler No. 2052/2053 When made 1958
 Fee for Register Book 19.836 Owners ESSO PETROLEUM CO., LONDON Port belonging to London

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Chesterfield Tube Co., (See Certificates)
 Date of Approval of plan 31.8.56, 3.9.56, 17.10.56 and 16.4.57 by Glasgow Office. No. and Description or Type
 Boilers Two - Two drum Babcock & Wilcox Design Pressure 965 PSI Tested by Hydraulic Pressure to 1498 PSI Date of Test 18 & 25.3.58
 No. of Certificate 441/442 Can each boiler be worked separately yes Total Heating Surface of Boilers 2 x 8750 Superheaters 2 x 1168 sq.ft.
 Half Economisers none Is forced draught fitted yes Area of Fire Grate (coal) in each Boiler 19.836 sq.
 Name and type of burners (oil) in each boiler 5 Dewrance type No. and description of safety valves on
 each boiler Two 1.5/8" Dewrance spring loaded full bore Area of each set of valves per boiler as appd.
 as fitted 4.148 sq.ins. Pressure to which they
 are adjusted 945 PSI Are they fitted with easing gear yes In case of donkey boilers state whether steam from main boilers can enter
 the donkey boiler none Smallest distance between boilers or uptakes and bunkers or woodwork ample Height of boiler About 20'-0"
 Width and length about 17'-0" X 20'-0" Steam Drums:—Number in each boiler one Inside diameter 4'-0 1/4" R. 24 1/8"
 Thickness of plates 4, 13/16" & 1, 9/16" Range of tensile strength as appd. Are drum shell plates welded
 or flanged welded If fusion welded, state name of welding firm B. & W. See Glasgow Certificate Have all the requirements of the Rules
 for Class I vessels been complied with yes Description of riveting:—Circ. seams long seams long
 Diameter of rivet holes in long. seams as appd. Pitch of rivets as appd. Thickness of straps as appd. Percentage strength of
 long. joint:—Plate as appd. Rivet as appd. Diameter of tube holes in drum 1.26" 2' 3 1/2" 4" Pitch of tube holes 1.7/8" x 1.1/2"
 Percentage strength of shell in way of tubes as appd. Steam Drum Heads or Ends:—Range of tensile strength as appd.
 Thickness of plates 1.7/8" Radius or how stayed ellipsoidal Size of manhole or handhole 12" x 16" Water Drums:—Number
 in each boiler one Inside diameter 2'-6" Thickness of plates 2.15/16" Range of tensile strength 31 - 38 T/sq" Are drum shell plates
 welded or flanged forged If fusion welded, state name of welding firm as appd. Have all the requirements of the Rules
 for Class I vessels been complied with yes Description of riveting:—Circ. seams long seams long
 Diameter of rivet holes in long. seams as appd. Pitch of rivets as appd. Thickness of straps as appd. Percentage strength of
 long. joint:—Plate as appd. Rivet as appd. Diameter of tube holes in drum 1.26" Pitch of tube holes 1.7/8" x 1.1/2"
 Percentage strength of drum shell in way of tubes as appd. Water Drum Heads or Ends:—Range of tensile strength 34 - 40 T/sq.ins
 Thickness of plates 3.3/4" & 3.1/4" Radius or how stayed forged Size of manhole or handhole 12" x 16"
 Headers or Sections:—Number 3 Material steel Thickness 1.1/4" Tested by hydraulic pressure to 1498 PSI
 Tubes:—Diameter 1.1/4", 2" & 3.1/4" thickness 10, 7 & 0. SWG Number 1725, 161 & 6 Steam Dome or Collector:—Description of
 joint to shell as appd. Inside diameter as appd. Thickness of shell plates as appd. Range of tensile
 strength as appd. Description of longitudinal joint as appd. If fusion welded, state name of welding
 firm as appd. Have all the requirements for the Rules for Class I vessels been complied with yes Diameter of rivet holes
 Pitch of rivets as appd. Thickness of straps as appd. Percentage strength of long. joint as appd. plate as appd. rivet
 Crown or End Plates:—Range of tensile strength as appd. Thickness as appd. Radius or how stayed as appd.
SUPERHEATER. Headers:—Number in each boiler two Outside diameter 10 1/4"
 Thickness 1.7/16" Material 1% Molyb steel Range of tensile strength 28 T/sq.ins. Are drum shell plates welded
 or flanged forged If fusion welded, state name of welding firm as appd. Have all the requirements of the Rules
 for Class I vessels been complied with yes Description of riveting:—Circ. seams long seams long
 Diameter of rivet holes in long. seams as appd. Pitch of rivets as appd. Thickness of straps as appd. Percentage strength of
 long. joint:—Plate as appd. Rivet as appd. Diameter of tube holes in drum 1.26" Pitch of tube holes 26" Percentage strength of
 drum shell in way of tubes as appd. Drum Heads or Ends:—Thickness 1.1/8" Range of tensile strength 28 T/sq."
 Radius or how stayed forged Size of manhole or handhole 4" x 3.3/8" Number, diameter, and thickness of tubes 150 x 1.1/4" - 10 & 8 SWG
 Tested by hydraulic pressure to 1498 PSI Date of test 5th & 16th Sept., 1958 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 1.5/8" dia Full bore Dewrance Area of each set
 of valves 2.0739 sq.ins. Pressure to which they are adjusted 935 PSI 860° F Is easing gear fitted yes
 Spare Gear. Has the spare gear required by the Rules been supplied yes

Cantieri Riuniti Dell'Adriatico
 FABBRICA MACCHINE S. ANGELO
 Manufacturer.

Dates of Survey See report 4a Is the approved plan of boiler forwarded herewith no
 (retained for sister vessel.)
 while building During erection on board vessel Total No. of visits 12

Is this boiler a duplicate of a previous case yes If so, state vessel's name and report No. "ESSO WINDSOR" Tri. Rpt. N. 14826.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The steam & water drums, water wall headers, superheater headers and stud water wall tubes were manufactured by Babcock & Wilcox (see Glasgow Certs. N's. C.39057, C.44452 & C.48367) the steam & water drums were drilled by C.R.D. Adriatico Trieste and the remaining tubes supplied by Dalmine (Italy). The boilers & superheaters were assembled by Messrs. C.R.D. Adriatico Trieste and efficiently installed in the above vessel, in accordance with the approved plans and the Rule requirements. Contd.

Survey Fee ... £ 285.9.0 When applied for 19
 Travelling Expenses (if any) £ : When received 19

FRIDAY 13 FEB 1959

Date See Rpt. 1.
 Committee's Minute See Rpt. 1.

Engineer Surveyor to Lloyd's Register of Shipping.



on the S.S./M.S. "ESSO SOUTHAMPTON"

The boilers and superheaters were tested on completion under hydraulic pressure to the pressures stated above.

The materials and workmanship are good.

The boilers and superheaters have been examined under full steaming conditions and their safety valves adjusted to the pressures indicated above.

Satisfactory accumulation tests have been carried out.

The boilers are eligible, in my opinion, for the highest classification and to have the notation :-

2. W.T. Boilers 965 PSI Supt. 935 PSI

F.D. O.F. Heating Surface 19,836 sq.feet.

A. Wilson

