

# REPORT ON WATER TUBE BOILERS.

No. 14895

Received at London Office  
 Date of writing Report 2nd Dec. 1958 When handed in at Local Office 19 Port of TRIESTE  
 No. in Survey held at Trieste Date, First Survey See Rpt. 4a Last Survey 19  
 g. Book. (Number of Visits) Gross 23457  
 405 on the "ESSO SOUTHAMPTON" Tons Net 1958 - 11  
 ult at Trieste By whom built C.R.D. Adriatico Yard No. 1839 When built 1958  
 gines made at Trieste By whom made C.R.D. Adriatico Engine No. 316/317 When made 1958  
 ilers made at Glasgow & Trieste By whom made Babcock & Wilcox & C.R.D. Boiler No. 2052/2053 When made 1958  
 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  
 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. ft.  
 and type of burners (oil) in each boiler 5 Dewrance type No. and description of safety valves on  
 ch boiler Two 1.5/8" Dewrance spring loaded full bore Area of each set of valves per boiler as appd. 4.148 sq. ins. Pressure to which they  
 e adjusted 945 PSI Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter  
 e 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. 34 1/8"  
 Thickness of plates 4. 13/16" & 1. 9/16" Range of tensile strength Are drum shell plates welded  
 flanged welded If fusion welded, state name of welding firm B. & W. See Glasgow Certificate Have all the requirements of the Rules  
 r Class I vessels been complied with Yes Description of riveting:—Circ. seams long. seams  
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of  
 ng. joint:—Plate Rivet Diameter of tube holes in drum 1.26" 2' 3" 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  
 Thickness of plates 1.7/8" Radius or how stayed ellipsoidal Size of manhole or handhole 12" x 16" Water Drums: Number  
 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  
 lded or flanged forged If fusion welded, state name of welding firm Have all the requirements of the Rules  
 r 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 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"  
 eaders 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 3/2/59  
 int to shell Inside diameter Thickness of shell plates Range of tensile  
 length Description of longitudinal joint If fusion welded, state name of welding  
 m Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes  
 tch of rivets Thickness of straps Percentage strength of long. joint plate rivet  
 own or End Plates: Range of tensile strength Thickness Radius or how stayed  
**SUPERHEATER.** Headers: Number in each boiler two Outside diameter 10 1/4"  
 Thickness 1.7/16" Material 1% Molym steel Range of tensile strength 28 T/sq. ins. Are drum shell plates welded  
 flanged forged If fusion welded, state name of welding firm Have all the requirements of the Rules  
 r 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 1.13/16" x Percentage strength of  
 ng. joint:—Plate Rivet Diameter of tube holes in drum 1.26" Pitch of tube holes 26" Percentage strength of  
 um shell in way of tubes as appd. Drum Heads or Ends: Thickness 1.1/8" Range of tensile strength 28 T/sq. ins  
 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  
 n 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  
 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 The foregoing is a correct description,  
 FABBRICA MACCHINE S. ANGELO Manufacturer.

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

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  
 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. J. Wilson*