

REPORT ON WATER TUBE BOILERS.

No. **15093**

Received at London Office

Port of **TRIESTE**

ate of writing Report **17.12.59** 19 When handed in at Local Office 19

No. in Survey held at **Trieste & Monfalcone** Date, First Survey **see Rpt 4a** Last Survey 19

Reg. Book. (Number of Visits) Gross **23720**

0931 on the **ESSO LIVERPOOL** Tons Net **12752**

Built at **Monfalcone** By whom built **C.R.D. Adriatico** Yard No. **1841** When built **1959 - 11**

Engines made at **Trieste** By whom made **-do-** Engine No. **320/321** When made **1959**

Boilers made at **Glasgow & Trieste** By whom made **Babcock & Wilcox and C.R.D. Adriatico** Boiler No. **2056/2057** When made **1959**

HS for Register Book **19,836** Owners **Esso Petroleum Co., Ltd.** 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 & 16.4.57** by **Glasgow Office** No. and Description or Type **Two : two drum Babcock & Wilcox**

of Boilers **Two : two drum Babcock & Wilcox** Design Pressure **965 PSI** Tested by Hydraulic Pressure to **1498 PSI** Date of Test **27.4.59**

No. of Certificate **447/448** 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 **-**

No. and type of burners (oil) in each boiler **5 Dewrance type** No. and description of safety valves on each boiler **2. 1.5/8" dia. Spring loaded full bore**

each boiler **2. 1.5/8" dia. Spring loaded full bore** Area of each set of valves per boiler **as fitted 4.148 sq. ins.** Pressure to which they are adjusted **9.5 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 **abt. 20'-0"**

Width and length **abt. 17'-0" x 20'-0"** Steam Drums:—Number in each boiler **one** Inside diameter **4'-0 1/4"**

Thickness of plates **4.13/16" & 1.9/16"** Range of tensile strength **Min. 32 Tons/sq. inch** Are drum shell plates welded or flanged **welded**

If fusion welded, state name of welding firm **B & W. See Glasgow Cert. C.51076** Have all the requirements of the Rules for 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 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 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 in each boiler **one**

Inside diameter **2'-6"** Thickness of plates **2.15/16"** Range of tensile strength **Min. 34 T/sq. inch** Are drum shell plates welded or flanged **welded**

If fusion welded, state name of welding firm **B & W. See Glas. Cert. C51076** Have all the requirements of the Rules for 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 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 **-**

Thickness of plates **1.7/8"** Radius or how stayed **Ellipsoidal** Size of manhole or handhole **12" x 16"**

Headers or Sections:—Number **3** Material **steel** Thickness **1.1/4"-1.1/8" & 1"** 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 **-**

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 two Outside diameter **10 1/4"**

Thickness **1 7/16"** Material **1 1/2% Moly Steel** Range of tensile strength **See Glas. Cert. C35498** 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 **1.26"** Pitch of tube holes **1.13/16" x 26 degrees** Percentage strength of drum shell in way of tubes **as appd.**

Drum Heads or Ends:—Thickness **1.1/8"** Range of tensile strength **-**

Radius or how stayed **forged & welded** Size of manhole or handhole **4" x 4.3/8"** Number, diameter, and thickness of tubes **150 x 1.1/4" 10 & 8 SWG**

Tested by hydraulic pressure to **1498 PSI** Date of test **22 & 26.8.59** 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** Is easing gear fitted **yes**

Spare Gear. Has the spare gear required by the Rules been supplied **yes**

The foregoing is a correct description,

Cantieri Riuniti Dell Adriatico

FABBRICA MACCHINE S. A. Manufacturer.

Is the approved plan of boiler forwarded herewith **no**

Retained for sister vessel.

Total No. of visits

Dates of Survey

During progress of work in shops - -

while building

During erection on board vessel - -

See separate sheet

Is this boiler a duplicate of a previous case **yes** If so, state vessel's name and report No. **ESSO COVENTRY" Trieste Rpt. N°. 14993**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. **The steam and water drums, water wall headers, superheater headers and stud water wall tubes were manufactured by Babcock & Wilcox (see Glasgow Certs. N's. C.51076 and C.35495, C.55494 and C.47967). The steam and water drums were drilled by C.R.D. Adriatico Trieste and the remaining tubes supplied by Dalmine (Italy). The boilers and superheaters were assembled by Messrs. C.R.D. Adriatico Trieste and**

Survey Fee **see Rpt 4. a** : : When applied for 19

Travelling Expenses (if any) £ : : When received 19

FRIDAY 12 FEB 1960

Date

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

Contd.../

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14 JAN 1960

Port of

TRIESTE

Continuation of ~~XXX~~ Mch. Report No. 15093 dated

on the S.S./M.S. ESSO LIVERPOOL C.R.D.A. YARD N° 1841

efficient installed in the above vessel, all in accordance with the approved plans and the Rule requirements.

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

The materials and workmanship are good.

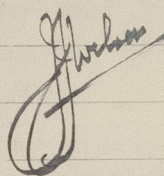
The boilers and superheaters have been examined under full steaming conditions and their safety valves adjusted to the pressures indicated above.

Satisfactory accumulation tests have been carried out.

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

2 W.T. Boilers 965 P.S.I. Supht. 935 P.S.I.

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



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