

# REPORT ON WATER TUBE BOILERS.

No. 125861

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No. in Survey held at Birkenhead Date, First Survey \_\_\_\_\_ Last Survey \_\_\_\_\_ 19\_\_

Reg. Bk. 3549 on the S.S. "Esso BIRMINGHAM" (Number of Visits \_\_\_\_\_) Tons Gross 10430  
Net 4419

Built at Bhestet. Pa. By whom built Sen S.B. & Dry Dock Co. When built 1943

Engines made at Lynn. Mass By whom made General Electric Co. When made 1943

Boilers made at \_\_\_\_\_ By whom made Babcock Wilcox Ltd. When made 1943

Nominal Horse Power \_\_\_\_\_ Owners Anglo American Oil Co. Ltd. Port belonging to London

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

Date of Approval of plan \_\_\_\_\_ Number and Description or Type of Boilers 2 B.W. main type Working Pressure 500 lbs Tested by Hydraulic Pressure to \_\_\_\_\_ Date of Test 4/9/48

No. of Certificate \_\_\_\_\_ Can each boiler be worked separately yes Total Heating Surface of Boilers Superheater 842

Is forced draught fitted yes Area of fire grate (coal) in each Boiler \_\_\_\_\_ No. and description of safety valves on each boiler 2. 2" high lift single

are adjusted 500 lbs/sq 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 well clear Height of boiler 21'0"

Width and Length 13'6" x 18'6" Steam Drums:—Number in each boiler one Inside diameter 42 1/2"

Thickness of plates Drum 3/32" Subplate 1/16" Range of Tensile Strength \_\_\_\_\_ Are drum shell plates welded or flanged welded 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:—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" Pitch of tube holes 6 1/2"

Percentage strength of shell in way of tubes 41.2% Steam Drum Heads or Ends:—Range of tensile strength \_\_\_\_\_

Thickness of plates \_\_\_\_\_ Radius or how stayed \_\_\_\_\_ Size of manhole or handhole 16" x 12" Water Drums:—Number in each boiler none Inside Diameter \_\_\_\_\_ Thickness of plates \_\_\_\_\_ 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:—Cir. seams \_\_\_\_\_ long. seam \_\_\_\_\_ 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 \_\_\_\_\_ Water Drum Heads or Ends:—Range of Tensile strength \_\_\_\_\_

Thickness of plates \_\_\_\_\_ Radius or how stayed \_\_\_\_\_ Size of manhole or handhole \_\_\_\_\_

Headers or Sections:—Number 14 pairs Material S.D. Steel Thickness 1 1/2" Tested by Hydraulic Pressure to \_\_\_\_\_

Tubes:—Diameter 4 1/2", 4", 3 1/2", 2 1/2" Thickness 49, 59, 69, 109, 139 Number 14, 28, 256, 1148 Steam MVD DRUM or Collector:—Description of joint to shell rippled Inside diameter 4 1/2" x 4 1/2" Thickness of shell plates 3/4" Range of tensile strength \_\_\_\_\_

Thickness of longitudinal joint solid drawn 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 1 inlet & 1 outlet Inside Diameter 4 1/2" x 4 1/2"

Thickness 3/4" Material S.D. Steel Range of tensile strength \_\_\_\_\_ 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 \_\_\_\_\_

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 1 1/2" 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 219, 1 1/2", 11g

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 yes No. and description of Safety Valves 1. 1 1/2" H.C. single Area of each set of valves 1.46 sq Pressure to which they are adjusted 460 lbs/sq Is easing gear fitted yes

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

Total H.P. for 26 hrs = 11552 The foregoing is a correct description, \_\_\_\_\_

Manufacturer. \_\_\_\_\_

Is the approved plan of boiler forwarded herewith \_\_\_\_\_

Total No. of visits \_\_\_\_\_

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

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This report is submitted for the information of the Committee.

Survey Fee ... £ : : } When applied for, 19

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

Committee's Minute Assigned LIVERPOOL 26 AUG 1947

See Minute on Liverpool Machinery Report.

Engineer Surveyor to Lloyd's Register of Shipping.

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