

REPORT ON WATER TUBE BOILERS.

No. 17177

- 5 JAN 1949

Received at London Office

Writing Report 20th Dec 1948 When handed in at Local Office 21st Dec 1948 Port of BRISTOL
 in Survey held at Avonmouth Date, First Survey 6th October Last Survey 18th December 1948
 on the steel screw T2 Tanker "ESSO MANCHESTER" (Turbo Electric) Tons { Gross 10712
 Net 6301
 at Chester, Pa. By whom built Sun S.B. & Dry Dock Co. When built 1944
 made at Lynn, Mass. By whom made General Electric Co. When made 1944
 made at Barbeton, Ohio By whom made Babcock & Wilcox Co. When made 1944
 net Horse Power 1361 MN Owners Angle American Oil Co., Ltd. Port belonging to London

WATER TUBE BOILERS—MAIN, ~~SUBSIDARY OR DONKEY~~—Manufacturers of Steel Bethlehem & Worth

of Approval of plan American Bureau Number and Description or Type

Boilers 2 single pass - straight tube Working Pressure 500 lbs Tested by Hydraulic Pressure to 780 lbs Date of Test 28/1/49

Certificate Cap each boiler be worked separately Yes Total Heating Surface of Boilers 11552 (2 Spts. 1684)

ced draught fitted Yes Area of fire grate (coal) in each Boiler oil fired

nd type of burners (oil) in each boiler 4 - B & W Decagon Bailey Meter Co. Controls No. and description of safety valves on

boiler 2 - 2" diam. improved High Lift Area of each set of valve 6.28 sq.in. Pressure to which they are adjusted 500 lbs.sq.in.

ey fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler -

st distance between boilers or uptakes and bunkers 5' 0" Height of boiler 21' 0" Width and Length 11' 10" x 16' 0"

Drums:—Number in each boiler one Inside diameter 42" Thickness of plates 1.15/16 and 25/32

of Tensile Strength 70000 lbs.min. Are drum shell plates welded or flanged welded Description of riveting:—

seams none long. seams none Diameter of rivet holes in long. seams none Pitch of rivets none

of plate or width of butt straps none Thickness of straps none Percentage strength of long. joint:—Plate none Rivet none

ter of tube holes in drum 4 1/2" Pitch of tube holes varying Percentage strength of shell in way of tubes -

ng pressure by rules Steam Drum Heads or Ends:—Range of tensile strength 70000 lbs. Thickness of plates 1 1/4"

or how stayed Ellipsoidal of manhole or handhole 16" x 12" Working pressure by rules Water Drums:—Number

boiler none Inside Diameter - Thickness of plates - Range of tensile strength - Are drum shell plates

or flanged - Description of riveting:—Cir. seams - long. seams - Diameter of rivet holes in

seams - Pitch of rivets - Lap of plates or width of butt straps - Thickness of straps -

age strength of long. joint:—Plate - Rivet - Diameter of tube holes in drum - Pitch of tube holes -

age strength of drum shell in way of tubes - Working pressure by rules - Water Drum Heads or Ends:—Range of

strength - Thickness of plates - Radius or how stayed -

of manhole or handhole - Working pressure by rules - Headers or Sections:—Number 14

al O.H. Steel Thickness 19/32" Tested by Hydraulic Pressure to 1000 lbs.sq.in Tubes:—Diameter 1 1/2, 1 1/2, 2, 3 1/2, 4, 4 1/2"

ess 11, 13, 14, 10, 6, 5, 4 Number 219, 1148, 882 Steam Dome or Collector:—Description of Joint to Shell none

diameter - Thickness of shell plates 5/8, 3/8, 1/4 Range of tensile strength -

otion of longitudinal joint - Diameter of rivet holes - Pitch of rivets - Lap of plate or width of

aps - Thickness of straps - Percentage strength of long. joint - Plate - Rivet -

ng Pressure of shell by rules - Crown or End Plates:—Range of tensile strength -

ess - Radius or how stayed - Working pressure by rules -

ERHEATER. ~~DRUMS~~ Headers:—Number in each boiler Two Inside Diameter 7 1/4" square

ess 7 1/8" Material O.H. Steel Range of tensile strength 55000 lbs.sq.in.min Are drum shell plates welded

ged - Description of riveting:—Cir. seams - long. seams - Diameter of rivet holes in

ams - Pitch of rivets - Lap of plates or width of butt straps - Thickness of straps -

age strength of long. joint:—Plate - Rivet - Diameter of tube holes in drum 1 1/2" Pitch of tube holes -

age strength of drum shell in way of tubes - Working pressure by rules - Drum Heads or Ends:—

ress - Range of tensile strength - Radius or how stayed - Size of manhole or handhole -

ng pressure by rules - Number, diameter, and thickness of tubes - Tested by Hydraulic Pressure to -

Test - Is a safety valve fitted to each section of the superheater which can be shut off from the boiler cannot be shut off

d description of Safety Valves one 1 1/2" dia. single high lift Area of each set of valves 1.767 sq.in.

to which they are adjusted 464 lbs.sq.inch Is easing gear fitted Yes

Gear. Has the spare gear required by the rules been supplied Yes

The foregoing is a correct description,

Manufacturer.

During progress of work in shops - Is the approved plan of boiler forwarded herewith No
 During erection on board vessel - Total No. of visits -

Boiler a duplicate of a previous case Yes If so, state vessel's name and report No. -

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.) These water tube boilers and superheaters have been built under the supervision of the U.S. Coast Guard and American Bureau of Shipping. The findings have been verified as far as practicable. The workmanship is good, and materials sound. In opinion as to class etc., please see Rpt. 9. Bristol Rpt. No.

Survey Fee ... £ Inclusive } When applied for, 10
 Calling Expenses (if any) £ Fee. : } When received, 10

Committee's Minute FRID. 4 FEB 1949
See minute on p. 2 of rpt.
 Engineer Surveyor to Lloyd's Register of Shipping.



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