

REPORT ON WATER TUBE BOILERS.

No. 105723

Received at London Office

23 DEC 1948

Date of writing Report

19

When handed in at Local Office

2 DEC 1948

Port of

NEWCASTLE-ON-TYNE

No. in

Survey held at WALLSEND

Date, First Survey 28/9/48

Last Survey 8/11/48

19

Reg. Bk.

3472 on the TURBO ELEC S.S. "ESSO PURFLEET"

(Number of Visits 31)

Tons

Gross 10,712

Net 6301

built at CHESTER P.A.

By whom built SUN S.B. & DRYDOCK CO

When built 1944

Engines made at PITTSBURGH P.A.

By whom made WESTINGHOUSE ELEC & MFG CO

When made 1944

Boilers made at NEWYORK

By whom made BABCOCK & WILCOX

When made 1944

Nominal Horse Power 1485

Owners ANGLo AMERICAN OIL CO LTD

Port belonging to LONDON

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel BETH STEEL CO

Date of Approval of plan

Number and Description or Type

Boilers 2 B.S.W. MARINE TYPE

Working Pressure 500 lbs

Tested by Hydraulic Pressure to 750 lbs

Date of Test

Class of Certificate

Can each boiler be worked separately YES

Total Heating Surface of Boilers 11,552.0 sq. ft.

Is forced draught fitted YES

Area of fire grate (coal) in each Boiler

No. and type of burners (oil) in each boiler 4 BABCOCK & WILCOX

No. and description of safety valves on

each boiler 1. 1 5/8" IMPROVED HIGH LIFT (DOUBLE)

Area of each set of valves per boiler

per rule as fitted 4.146 sq. in. Pressure to which they

are adjusted 500 lbs

Are they fitted with easing gear YES

In case of donkey boilers state whether steam from main boilers can enter

donkey boiler NONE

Smallest distance between boilers or uptakes and bunkers or woodwork 5'

Height of boiler 21'0"

Width and Length 13'6" x 18'6"

Steam Drums:—Number in each boiler ONE

Inside diameter 40 7/8"

Thickness of plates 7/8"

Range of Tensile Strength

Are drum shell plates welded

flanged WELDED. If fusion welded, state name of welding firm

Have all the requirements of the rules

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" & 4 1/2"

Pitch of tube holes 6 3/16" & 6 7/8"

Percentage strength of shell in way of tubes 42% & 35%

Steam Drum Heads or Ends:—Range of tensile strength

Thickness of plates 1 1/4"

Radius or how stayed

Size of manhole or handhole 16" x 12"

Water Drums:—Number

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

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

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 PAIR

Material S.D. STEEL

Thickness 1 9/32"

Tested by Hydraulic Pressure to

headers:—Diameter 4 1/2", 4", 3 1/4", 2", 1 1/2"

Thickness 4, 5, 6, 10, 13, B.W.C.

Number 14, 23, 2, 56, 1145

MUD DRUM HEADER. Steam Dome or Collector:—Description of

headers:—NIPPED

Inside diameter 7 1/4" x 7 1/4"

Thickness of shell plates 3/4"

Range of tensile

strength

Description of longitudinal joint

If fusion welded, state name of welding

Have all the requirements of the rules for Class I vessels been complied with

Diameter of rivet holes

Thickness of straps

Pitch of rivets

Percentage strength of long. Joint

Plate

Rivet

Percentage strength of

long. joint

Plate

Rivet

own or End Plates:—Range of tensile strength

Thickness

Radius or how stayed

UPERHEATER. Drums or Headers:—Number in each boiler 1 INLET & 1 OUTLET

Material S.D. STEEL

Range of tensile strength

Inside Diameter 7 1/4" x 7 1/4"

Thickness 7/8"

Are drum shell plates welded

flanged WELDED

If fusion welded, state name of welding firm

Have all the requirements of the rules

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 1/4"

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

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 5/8" IMPROVED HIGH LIFT (SINGLE)

Area of each set

valves 1.34 sq ins

Pressure to which they are adjusted 464 lbs

Is easing gear fitted YES

Easing Gear. Has the spare gear required by the rules been supplied YES.

The foregoing is a correct description,

Manufacturer.

Dates of Survey

During progress of work in shops

Is the approved plan of boiler forwarded herewith

while building

During erection on board vessel

SEE REPORT 4A.

Total No. of visits 31

Is this boiler a duplicate of a previous case YES

If so, state vessel's name and report No. T.2. TANKERS.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These water tube boilers have been constructed under the supervision of the U.S. Coast Guard, and the American Bureau of Shipping. The scantlings have been verified as far as practicable. The workmanship is good and the materials considered sound.

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

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

Committee's Minute signed

4 FEB 1949 See minute on file made up.

Engineer Surveyor to Lloyd's Register of Shipping.



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