

REPORT ON WATER TUBE BOILERS.

MOB. RPT. No. 2030

No. 19536

Received at London Office

23 APR 1954

Date of writing Report 22-4-1954

When handed in at Local Office

22-4-1954

Port of West Hartlepool

No. in

Survey held at

West Hartlepool

Reg. Bk.

on the S.S. "MELIKA"

Date, First Survey

11th Sept., 1952,

Last Survey

21st April, 1954.

(Number of Visits 190)

Tons { Gross

Net

Built at

Haverton Hill-on-Tees

By whom built

Furness Shipbuilding Co.

When built

1954.

Engines made at

Hartlepool

By whom made

Richardsons Westgarch (Hartlepool) Ltd

When made

1954

Boilers made at

Hartlepool

By whom made

Richardsons Westgarch (Hartlepool) Ltd

When made

1954

Nominal Horse Power

Owners

Afran Transport Co. N.Y. U.S.A.

Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

STEWARTS & LLOYD'S GLASGOW SCROLL

SOUTH DURHAM STEEL CO. TAILOUT STEEL TUBE

Date of Approval of plan 26-12-51, 17-3-53, 4-6-52, 8-10-53, 10-12-53, 22-2-53, 18-1-53, 24-3-53, 22-1-54

Number and Description or Type

of Boilers

2- FOSTER WHEELER "D" TYPE MARINE

Working Pressure

600 LB/SQ. IN.

Tested by Hydraulic Pressure to

1085 LB/SQ. IN.

No. of Certificate

S.S. 2. R. 4. 2. 0. 5

Can each boiler be worked separately

YES

Total Heating Surface of Boilers

6680 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- TODD OIL BURNERS

No. and description of safety valves on

each boiler

1- 2" COCKBURN SINGLE FULLBORE TYPE

Area of each set of valves per boiler

per rule

2.50 INS

Pressure to which they

as fitted

2.65 INS

Are they fitted with easing gear

YES

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

Smallest distance between boilers or uptakes and bunkers or woodwork

Width and Length

14'-9" x 22'-6"

Steam Drums:—Number in each boiler

ONE

Height of boiler

22'-0"

Thickness of plates

3/8" WRAPPER PLATE

Inside diameter

2'-3" RAD. WRAPPER PLATE

Are drum shell plates welded

WELDED

Range of Tensile Strength

28-32 TONS/SQ. INS

Are drum shell plates welded

If fusion welded, state name of welding firm

MARSHALL & ANDERSON LTD

MOTHERWELL

Have all the requirements of the rules

or Class I vessels been complied with

YES

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" & 2"

Pitch of tube holes

2 1/4" & 3 5/8"

Percentage strength of shell in way of tubes

44.5%

Steam Drum Heads or Ends:—Range of tensile strength

26-30 TONS/SQ. INS.

Thickness of plates

2" & 2 1/8"

Radius or how stayed

4'-0" INT. RAD

Size of manhole or handhole

16" x 12" ELLIPTICAL

Water Drums:—Number

ONE

Inside Diameter

2'-9"

Thickness of plates

2"

Range of tensile strength

28-32 TONS/SQ. IN.

Are drum shell plates

WELDED

If fusion welded, state name of welding firm

MARSHALL & ANDERSON LTD

or Class I vessels been complied with

YES

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

1 1/4" & 2"

Pitch of tube holes

2 1/4" & 3 5/8"

Percentage strength of drum shell in way of tubes

44.5%

Water Drum Heads or Ends:—Range of Tensile strength

26-30 TONS/SQ. INS.

Thickness of plates

1 1/2" & 1 1/4"

Radius or how stayed

2'-9" INT. RADIUS

Size of manhole or handhole

16" x 12" ELLIPTICAL

Material

MILD STEEL

Thickness

1"

Tested by Hydraulic Pressure to

1085 LB/SQ. IN.

Number

232 & 1026

Steam Dome or Collector:—Description of

Range of tensile

If fusion welded, state name of welding

Diameter of rivet holes

Plate

Rivet

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" & 2"

Pitch of tube holes

2 1/4" & 3 5/8"

Percentage strength of drum shell in way of tubes

44.5%

Water Drum Heads or Ends:—Range of Tensile strength

26-30 TONS/SQ. INS.

Thickness of plates

1 1/2" & 1 1/4"

Radius or how stayed

2'-9" INT. RADIUS

Size of manhole or handhole

16" x 12" ELLIPTICAL

Material

MILD STEEL

Thickness

1"

Tested by Hydraulic Pressure to

1085 LB/SQ. IN.

Number

232 & 1026

Steam Dome or Collector:—Description of

Range of tensile

If fusion welded, state name of welding

Diameter of rivet holes

Plate

Rivet

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" & 2"

Pitch of tube holes

2 1/4" & 3 5/8"

Percentage strength of drum shell in way of tubes

44.5%

Water Drum Heads or Ends:—Range of Tensile strength

26-30 TONS/SQ. INS.

Thickness of plates

1 1/2" & 1 1/4"

Radius or how stayed

2'-9" INT. RADIUS

Size of manhole or handhole

16" x 12" ELLIPTICAL

Material

MILD STEEL

Thickness

1"

Tested by Hydraulic Pressure to

1085 LB/SQ. IN.

Number

232 & 1026

Steam Dome or Collector:—Description of

Range of tensile

If fusion welded, state name of welding

Diameter of rivet holes

Plate

Rivet

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" & 2"

Pitch of tube holes

2 1/4" & 3 5/8"

Percentage strength of drum shell in way of tubes

44.5%

Water Drum Heads or Ends:—Range of Tensile strength

26-30 TONS/SQ. INS.

Thickness of plates

1 1/2" & 1 1/4"

Radius or how stayed

2'-9" INT. RADIUS

Size of manhole or handhole

16" x 12" ELLIPTICAL

Material

MILD STEEL

Thickness

1"

Tested by Hydraulic Pressure to

1085 LB/SQ. IN.

Number

232 & 1026

Steam Dome or Collector:—Description of

Range of tensile

If fusion welded, state name of welding

Diameter of rivet holes

Plate

Rivet

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" & 2"

Pitch of tube holes

2 1/4" & 3 5/8"

Percentage strength of drum shell in way of tubes

44.5%

Water Drum Heads or Ends:—Range of Tensile strength

26-30 TONS/SQ. INS.

Thickness of plates

1 1/2" & 1 1/4"

Radius or how stayed

2'-9" INT. RADIUS

Size of manhole or handhole

16" x 12" ELLIPTICAL

Material

MILD STEEL

Thickness

1"

Tested by Hydraulic Pressure to

1085 LB/SQ. IN.

Number

232 & 1026

Steam Dome or Collector:—Description of

Range of tensile

If fusion welded, state name of welding

Diameter of rivet holes

Plate

Rivet

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" & 2"

Pitch of tube holes

2 1/4" & 3 5/8"

Percentage strength of drum shell in way of tubes

44.5%

Water Drum Heads or Ends:—Range of Tensile strength

26-30 TONS/SQ. INS.

Thickness of plates

1 1/2" & 1 1/4"

Radius or how stayed

2'-9" INT. RADIUS

Size of manhole or handhole

16" x 12" ELLIPTICAL

Material

MILD STEEL

Thickness

1"

Tested by Hydraulic Pressure to

1085 LB/SQ. IN.

Number

232 & 1026

Steam Dome or Collector:—Description of

Range of tensile

If fusion welded, state name of welding

Diameter of rivet holes

Plate

Rivet

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps