

## REPORT ON WATER TUBE BOILERS.

No. 58741

Received at London Office

AUG 18 1937

Date of writing Report

4/8/37

19

When handed in at Local Office

14. 8.

19

37

Port of

Glasgow

No. in

Survey held at

Glasgow

Date, First Survey

24. 2. 37

Last Survey

6-8-37

19

Reg. Bk.

on the

2 Boilers for Matheson &amp; Co. (Contract No 1700)

Number of Visits

11

Gross

Tons

Net

Master

Built at

By whom built

When built

Engines made at

By whom made

When made

Boilers made at

Scotstoun

By whom made

Yarrow &amp; Co Ltd

When made

1937

Registered Horse Power

Owners

Port belonging to

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

Steel Co: of Scotland Ltd.

(Letter for Record

Date of Approval of plan

3/3/37

of Boilers

Two - Yarrow.

Working Pressure

250 lb

Tested by Hydraulic Pressure to

425 lb

Number and Description or Type

Date of Test

28/4/37

No. of Certificate

19991.

Can each boiler be worked separately

✓

Total Heating Surface of Boilers

5000 sq ft

Is forced draught fitted

Area of fire grate (coal) in each Boiler

63 sq ft

Total grate area of boilers in vessel including

Main and Auxiliary

No. and type of burners (oil) in each boiler

each boiler

1-2 1/2" Double Imp. High Lift

Area of each valve

3.97 sq ft

No and description of safety valves on

Are they fitted with easing gear

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

Smallest distance between boilers or uptakes and bunkers or woodwork

Height of Boiler

Width and Length

Steam Drums:—Number in each boiler

Inside diameter

3' 6 3/4"

Material of plates

Steel

Thickness

1 1/16" &amp; 9/16"

Range of Tensile Strength

26-30 Tons

Are drum shell plates welded or flanged

NO

Description of riveting:

Cir. seams

D.R.

long. seams D.R.-D.B.S.

Diameter of rivet holes in long. seams

13/16"

Pitch of Rivets

3 1/32"

Lap of plate or width of butt straps

8 1/4" &amp; 7 1/2"

Thickness of straps

13/16" &amp; 29/32"

Percentage strength of long. joint:—Plate

75

Rivet

90

Diameter of tube holes in drum

1503 &amp; 1.26"

Pitch of tube holes

1 1/8" DIAG. PITCHES

Percentage strength of shell in way of tubes

33.3

If Drum has a flat side state method of staying

NO

Depth and thickness of girders at centre

(if fitted)

Distance apart

Number and pitch of stays in each

Working pressure

by rules

264 lb

Steam Drum Heads or Ends:—Material

STEEL

Thickness

7/8" &amp; 3/4"

Radius or how stayed

3'-0"

Size of Manhole or Handhole

16" x 12"

Water Drums:—Number in each boiler

2

Inside Diameter

23"

Material of plates

STEEL

Thickness

1 1/8" &amp; 5/8"

Range of tensile strength

26-30 TONS

Are drum shell plates welded

or flanged

NO

Description of riveting:—Cir. seams

S.R.

long. seams

D.R.-D.B.S.

Diameter of Rivet Holes in

long. seams

15/16"

Pitch of rivets

2 3/4"

Lap of plates or width of butt straps

5 7/8" &amp; 5 1/2"

Thickness of straps

7/16"

Percentage strength of long. joint:—Plate

63

Rivet

72

Diameter of tube holes in drum

1503 &amp; 1.26"

Pitch of tube holes

1 1/8" DIAG.

Percentage strength of drum shell in way of tubes

33.3

Water Drum Heads or Ends:—Material

STEEL

Thickness

3/4"

Radius or how stayed

21.5"

Size of manhole or handhole

16" x 12"

Headers or Sections:—Number

Material

✓

Thickness

✓

Tested by Hydraulic Pressure to

Material of Stays

Area at smallest part

.138" x .112"

Area supported by each stay

PER BLK. 128 @ 1 1/2"

Working Pressure by Rules

Tubes:—Diameter

1 1/2" &amp; 1 1/4"

Thickness

.138" x .112"

Number

970 @ 1 1/4"

Steam Dome or Collector:—Description of Joint to Shell

Percentage strength of Joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diameter of Rivet Holes

Pitch of Rivets

Working Pressure of shell

by Rules

Crown or End Plates:—Material

✓

Thickness

How stayed

## SUPERHEATER.

Type

Date of Approval of Plan

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is easing gear fitted

Is a drain cock or valve fitted at lowest point of superheater

Number, diameter, and thickness of tubes

Spare Gear.

Tubes 177

Gaskets or joints:—Manhole

8

Handhole

Handhole plates

The foregoing is a correct description,

10 AUG. 1937

Manufacturer.

Dates of Survey

During progress of work in shops - - - 1937 Feb. 24 Mar. 25 Apr. 5-30

while building

During erection on board vessel - - - May 6-13 June 16-23 July 2-28 Aug 6

Is the approved plan of boiler forwarded herewith

Yes.

Total No. of visits

11

## GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

These boilers have been built under Special Survey, to approved plans in accordance with the Society's Rules. Materials and workmanship are good. They are to the order of M<sup>r</sup> Matheson & Co (London) for shipment to China, for Hong Kong & Whampoa Dock Co's 778.

Survey Fee

£29.3-0

When applied for,

17 AUG 1937

Travelling Expenses (if any) £

When received,

20.10.1937

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 AUG 1937

Assigned TRANSMIT TO LONDON

TUE. 17 MAY 1938

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