

# REPORT ON WATER TUBE BOILERS.

No. 48549

31 OCT 1928

Received at London Office

191

When handed in at Local Office

27.10.1928

Port of Glasgow

Survey held at

Renfrew

Date, First Survey

16.1.28

Last Survey 23<sup>rd</sup> October 1928

Number of Visits 24

Gross 11940

Net 6611

on the

BOILER No 6/231 se. "CALGARO LITE"

Built at Middlesbrough

By whom built Furness Shipbuilding Co.

When built 1928

made at

Kiel

By whom made

Frieda Krupp Germania-Werke

When made 1929

made at

Renfrew

By whom made

Messrs Babcock & Wilcox Ltd

When made 1928

red Horse Power

271

Owners

Imperial Oil Co.

Port belonging to Middlesbrough

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

Steel Co of Scotland Ltd

for Record

Date of Approval of plan

1-2-28

Number and Description or Type

Boilers Two Babcock & Wilcox Type

Working Pressure 270 lb

Tested by Hydraulic Pressure to 455 lb

Certificate 6703

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers 4068 sq ft

ed draught fitted

yes

Area of fire grate (coal) in each Boiler oil fired

Total grate area of boilers in vessel including

and Auxiliary

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

No. and description of safety valves on

iler 1 off 1 1/4" D.S. Improved High Lift

Area of each valve

2.4 sq inches

Pressure to which they are adjusted 275 lb

y 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 or woodwork

18'-6"

Height of Boiler

Width and Length 10'-3" x 14'-0"

Drums:—Number in each boiler

One

Inside diameter 3'-6"

Material of plates

Steel

Thickness 5/8" & 1/2" T.P.

of Tensile Strength

28.32

Are drum shell plates welded or flanged

no

Description of riveting:—

ams D.R. Lap

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

Diameter of rivet holes in long. seams

29/32"

Pitch of Rivets 3.794"

plate or width of butt straps

10/32"

Thickness of straps

5/8"

Percentage strength of long. joint:—Plate 76.1 Rivet 83.6

er of tube holes in drum

4 3/4"

Pitch of tube holes

7"

Percentage strength of shell in way of tubes 80

um has a flat side state method of staying

Distance apart

Number and pitch of stays in each

Working pressure

connecting rods

Steam Drum Heads or Ends:—Material

Steel

Thickness from 15/16" plate

Radius or how stayed 3'-0"

Manhole or Handhole

15"x11"

MUD

Water Drums:—Number in each boiler

One

Inside Diameter 6"x6"

al of plates

Steel

Thickness

3/4"

Range of tensile strength

24.28 Tons

Are drum shell plates welded

down bolts

Lap welded

Description of riveting:—Cir. seams

long. seams

Diameter of Rivet Holes in

conditions

seams

Pitch of rivets

7"

Lap of plates or width of butt straps

Thickness of straps

6823. Stage strength of long. joint:—Plate

76.1

Rivet

83.6

Diameter of tube holes in drum

4 3/4"

Pitch of tube holes

7"

6824. Stage strength of drum shell in way of tubes

42.2

MUD

Water Drum Heads or Ends:—Material

Steel

Thickness

3/4"

or how stayed

Flat

Size of manhole or handhole

Headers or Sections:—Number 14 Pairs per Boiler

al Steel

Thickness

7/16"

Tested by Hydraulic Pressure to

600 lb

Material of Stays

7"

t smallest part

Area supported by each stay

42 @ 4"

430 @ 1 1/2"

Steam Dome or Collector:—Description of Joint to Shell

ess 4" (5 L.S.G. 1 1/2" (8 L.S.G. 1 1/2" (10 L.S.G. 1 1/2"

Number

42 @ 4"

430 @ 1 1/2"

Thickness of shell plates

stage strength of Joint

Diameter

42 @ 4"

430 @ 1 1/2"

Thickness of shell plates

ship of location of longitudinal joint

les

Crown or End Plates:—Material

Thickness

How stayed

Tested by Hydraulic Pressure to

455 lb

and quality

HEATER.

Type Babcock

Date of Approval of Plan

1-2-28

Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler

ized by

of Test

23-10-28

Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler

ter of Safety Valve

1-2" S. Spring C.S.

Pressure to which each is adjusted

60 @ 1 1/2"

No. 9 L.S.G.

Is easing gear fitted

rain cock or valve fitted at lowest point of superheater

yes

Number, diameter, and thickness of tubes

60 @ 1 1/2"

No. 9 L.S.G.

Is easing gear fitted

Gear. Tubes

Gaskets or joints:—Manhole

Handhole

Handhole plates

approved

The foregoing is a correct description,

Babcock & Wilcox, Ltd.

Manufacturer.

requirements

L.M.C.

board and

During progress of

work in shops

1928 Jan 16 Feb 20 Mar 18 Apr 24 May 27

Is the approved plan of boiler forwarded herewith

yes

During erection on

board vessel

May 30 June 13 July 11 Aug 16 Sep 27

Total No. of visits

24

19 Oct 13 17 23

GENERAL REMARKS

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

These boilers have been constructed

der survey in accordance with the rules and approved plan. The materials and

workmanship are good. Boilers despatched to Middlesbrough in sections

These boilers have been tested by hydraulic pressure to 455 lb. per square inch with

satisfactory results. They have been securely fitted aboard and their safety valves

adjusted and tested under steam with

satisfactory results.

Survey Fee

3/5

£ 16-5-0

When applied for

When received

191

avelling Expenses (if any)

£ 10-17-0

See machy report.

MONTHLY ACCO

191

Committee's Minute

GLASGOW

30 OCT 1928

TRANSMIT TO LONDON

See Machy report

No. 13948

Lloyd's Register

Foundation

Engineer Surveyor to Lloyd's Register of Shipping.

G. E. Murdoch

M. H. A.

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191

191