

Rpt. 5a.

# REPORT ON BOILERS.

SUNDERLAND RPT. No. 27274

No. 10029

Date of writing Report

191

When handed in at Local Office 13.2.18

Received at London Office

THU. 14 FEB. 1918

No. in Survey held at  
Reg. Book.

Stockton-on-Tees

Port of Middlesbrough Sld. 15 July 1918.

Date, First Survey 13<sup>th</sup> Dec 16 Last Survey 11<sup>th</sup> Feb 1918.

on the

Steel 35" WULSTY CASTLE".

(Number of Visits 20)

(S.S.N. 240)

Gross 3566  
Net 2184

Master E.R. Howe Built at Sunderland

By whom built J. Blumer & Co

When built 1918

Engines made at Middlesbrough By whom made Brush Electrical Eng. Co

When made 1918

Boilers made at Stockton

By whom made J. Th. Hudson & Co Ltd (N<sup>o</sup> 3943)

When made 1918

Registered Horse Power

Owners Lancashire Shipping Co

Port belonging to Liverpool

## MULTITUBULAR BOILERS — MAIN, AUXILIARY OR DONKEY.

(Letter for record (S) ) Total Heating Surface of Boilers 1131 sq ft

Is forced draft fitted no

No. and Description of

Boilers One single ended

Working Pressure 100

Tested by hydraulic pressure to 200

Date of test 4.2.18

No. of Certificate 5862 Can each boiler be worked separately

Area of fire grate in each boiler 35.8 sq ft

No. and Description of

Safety valves to each boiler Two direct spring.

Area of each valve 7.07 sq in

Pressure to which they are adjusted 105

Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 6'-0"

Inside

Mean dia. of boilers 11'-0" Length 10'-6"

Material of shell plates Steel

Thickness 2 3/32"

Range of tensile strength 29-33

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams Single lap long. seams 3 Riv. lap

Diameter of rivet holes in long. seams 15 1/16"

Pitch of rivets 3 3/8"

Lap of plates or width of butt straps 6 1/2"

Per centages of strength of longitudinal joint rivets 74.9

plate 78.6

Working pressure of shell by

rules 101

Size of manhole in shell 16" x 12"

Size of compensating ring 5 1/2" x 2 7/32"

No. and Description of Furnaces in each

boiler 2 plain

Material steel

Outside diameter 40 1/2"

Length of plain part top 82"

bottom 111"

Thickness of plates crown 1 1/32"

bottom 1 1/2"

Description of longitudinal joint Weld

No. of strengthening rings none

Working pressure of furnace by the rules 113

Combustion chamber

plates: Material Steel Thickness: Sides 1 1/32"

Back 1 1/32"

Top 1 1/32"

Bottom 1"

Pitch of stays to ditto: Sides 10 1/2" x 8" Back 8 1/2" x 9 1/2"

Top 9 1/2" x 8" If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 101

Material of stays steel

Area at

smallest part 1:19

Area supported by each stay 86.2

Working pressure by rules 111

End plates in steam space: Material steel Thickness 3/4"

Pitch of stays 17 1/2" x 15"

How are stays secured nuts & 6 x 1/2 washers

Working pressure by rules 100

Material of stays steel

Area at smallest part 2.66

Area supported by each stay 258

Working pressure by rules 107

Material of Front plates at bottom steel

Thickness 3/4"

Material of

lower back plate steel

Thickness 3/4"

Greatest pitch of stays 14" x 9 3/4"

Working pressure of plate by rules 133

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/2"

Material of tube plates steel

Thickness: Front 3/4"

Back 5/8"

Mean pitch of stays 11 1/2"

Pitch across wide

water spaces 13 3/4"

Working pressures by rules 106

Girders to Chamber tops: Material steel

Depth and thickness of

order at centre 6 1/2" x 1 1/2"

Length as per rule 27 3/32"

Distance apart 9 1/2"

Number and pitch of Stays in each 208"

Working pressure by rules 103

Steam dome: description of joint to shell none

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

% of strength of joint

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

PERHEATER. Type none

Date of Approval of Plan

Tested by Hydraulic Pressure to

Time of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Number of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

SURVEY REQUEST  
NO. 1328

The foregoing is a correct description,

THOMAS SUDRON & CO. LIMITED

Manufacturer.

Dates During progress of work in shops - 1916. Dec 13-20. 1917. Jan 9. May 11. 10 June 12-20. 29  
July 4. Aug 10. 16. Sep. 3. 21. 22. 27. Dec 14.  
During erection on board vessel - 1918. Jan 22. 24. 31. Feb. 4.

Is the approved plan of boiler forwarded herewith yes

Total No. of visits 20.

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

Special Survey: is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results  
Sunderland. Boilers satisfactorily fitted with the vessel  
22.5.18)

Survey Fee £ 3-15-0 When applied for, Monthly A/c.  
Travelling Expenses (if any) £ : : When received, 191

Committee's Minute

FRI. 2-AUG. 1918

Wm Morrison & Co. Ltd  
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
Foundation

005826-005839-0292