

(Boiler No 2061)

pt. 5a.

REPORT ON BOILERS.

No. 81929.

Received at London Office

SAT. 26 FEB. 1921

Date of writing Report 24/2/1921 When handed in at Local Office

24 FEB 1921

Port of

LIVERPOOL

No. in Survey held at

Birkenhead

Date, First Survey May 19th 1920. Last Survey Feb 21st 1921

Reg. Book.

on the Men^r Aldela & Mitchell's Vessel No 458.

(Number of Visits 17) Gross Tons Net

Master

Built at Queensferry, Chester By whom built J. F. Aldela & Mitchell

Engines made at

By whom made

When made

Boilers made at Birkenhead

By whom made

Cammell Laird & Co. Ltd.

When made

1921.

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel David Colville & Sons.

Letter for record S.

Total Heating Surface of Boilers 1443 sq ft

Is forced draft fitted

No. and Description of

Boilers One Cylindrical Multitubular. S.B. Working Pressure. 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 10. IX. 20

No. of Certificate 2139. Can each boiler be worked separately

Area of fire grate in each boiler 48.56 sq ft No. and Description of

safety valves to each boiler 2 in No Spring loaded. Area of each valve 4.9 sq in Pressure to which they are adjusted

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

Inside

dia. of boilers 15'-0" Length 10'-7 1/2"

Material of shell plates Steel Thickness 1 1/8" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No.

Descrip. of riveting: cir. seams D.R. lap. long. seams T.R. Double Straps Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 8"

Lap of plates or width of butt straps 16 7/8" Per centages of strength of longitudinal joint rivets 86.98% Working pressure of shell by rules 181.8 lbs. Size of manhole in shell 16" x 12" Size of compensating ring No. and Description of Furnaces in each

boiler 3 Morrison's. Material Steel Outside diameter 41 1/4" Length of plain part top { Corrugated Thickness of plates crown } 1/2"

Description of longitudinal joint Welded. No. of strengthening rings 7. Working pressure of furnace by the rules 183 lbs. Combustion chamber

plates: Material Steel Thickness: Sides 1 1/8" Back 5/8" Top 1 1/8" Bottom 1 1/8" Pitch of stays to ditto: Sides 8 3/4" x 8 1/2" Back 8 3/4" x 8 1/2"

Top 8 1/2" x 8 3/4" If stays are fitted with nuts or riveted heads Nuts. Working pressure by rules 181.5 lbs. Material of stays Steel Area at

smallest part 1.73 sq ft Area supported by each stay 74.375 sq ft Working pressure by rules 186 lbs. End plates in steam space: Material Steel Thickness 1 1/4"

Pitch of stays 1 1/2" x 22 5/8" How are stays secured Double Nuts & Washers. Working pressure by rules 181 lbs. Material of stays Steel Area at smallest part 7.24 sq ft

Area supported by each stay 396 sq ft Working pressure by rules 190 lbs. Material of Front plates at bottom Steel Thickness 1" Material of

Lower back plate Steel Thickness 1 1/8" Greatest pitch of stays 13 1/4" x 8 7/8" Working pressure of plate by rules 238 lbs. Diameter of tubes 3 1/2" x 1"

Pitch of tubes 4 1/2" x 4 1/8" Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 10 1/4" Pitch across wide

water spaces 14" Working pressures by rules 183 lbs. Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 8 5/8" x 1 3/8" Length as per rule 2'-6 5/8" Distance apart 8 3/4" Number and pitch of Stays in each 2 in No - 8 1/2"

Working pressure by rules 183.5 lbs. Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

UPPERHEATER. 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

CAMMELL The foregoing is a true and correct description,

J. W. Williams Manufacturer.

LOCAL SECRETARY

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits 17.

Dates of Survey During progress of work in shops - May 14, June 3, 12, 14, 24, July 5, 14, 20, 23, Aug 13, 20, 21, 27, Sept 1, 10, 13, Feb 21 1921

while building During erection on board vessel - - -

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

This Boiler has now been built under Special Survey & in accordance with the approved plan and Secretary's letter (E) dated the 24th December 1919. The workmanship & materials are of good quality & when tested to twice the working pressure was found satisfactory in every respect.

Survey Fee ... £ 9 : 12 : 1/2

Travelling Expenses (if any) £ : : When applied for, 24 FEB 1921

When received, 5:4:11

Committee's Minute

Assigned

Transmit to London. M.

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 21 MAR. 1921

Lloyd's Register Foundation