

REPORT ON BOILERS.

No. 39517
WED. 17 JAN. 1920

Received at London Office

Date of writing Report 1st Nov. 1919 When handed in at Local Office 6/11/1920 Port of Glasgow
 No. in Survey held at Paisley Date, First Survey 15th April 1919 Last Survey 31st Oct 1919
 Reg. Book. on the Single ended marine boiler for S/S BONAWIE (Number of Visits 14) } Gross 357
 Master D. S. Hannah Built at Bowling By whom built Scott & Sons When built 1919 } Net 139
 Engines made at Paisley By whom made Fisher's Ltd When made 1919
 Boilers made at Paisley By whom made A. F. Craig & Co. Ltd (644) When made 1919
 Registered Horse Power Owners J. A. Gardner & Co. Port belonging to Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel L. Colville & Glasgow Iron Works

(Letter for record S) Total Heating Surface of Boilers 1388 sq ft Is forced draft fitted No No. and Description of

Boilers one single ended Working Pressure 130 Tested by hydraulic pressure to 260 Date of test 31.10.19.

No. of Certificate 14964 Can each boiler be worked separately ✓ Area of fire grate in each boiler 42 sq ft No. and Description of

safety valves to each boiler 2 Spring loaded Area of each valve 5.939 Pressure to which they are adjusted 135 lbs sq in

Are they fitted with easing gear Yes 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 4'-0" Mean dia. of boilers 12'-6" Length 10'-0"

Material of shell plates Steel Thickness 25/32" Range of tensile strength 26/30 28/32 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R. long. seams T.R.D.B.S Diameter of rivet holes in long. seams 15/16" Pitch of rivets 1/2"

Lap of plates or width of butt straps 14" Per centages of strength of longitudinal joint rivets 84.58 Working pressure of shell by

rules 135 Size of manhole in shell 16" x 12" Size of compensating ring Whitell No. and Description of Furnaces in each

boiler Two plain Material Steel Outside diameter 3'-9" Length of plain part top ✓ Thickness of plates crown } 2 1/2"

Description of longitudinal joint weld No. of strengthening rings ✓ Working pressure of furnace by the rules 134 Combustion chamber

plates: Material Steel Thickness: Sides 19/32" Back 3/4" Top 19/32" Bottom 11/16" Pitch of stays to ditto: Sides 10 x 9 1/2" Back 9 1/4 x 9 1/4"

Top 9 x 9 1/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 130 Material of stays Steel Diameter at

smallest part 1.48 sq in Area supported by each stay 104.5 sq in Working pressure by rules 143 End plates in steam space: Material Steel Thickness 6/64

Pitch of stays 14 x 18" How are stays secured Nuts & washers Working pressure by rules 140 Material of stays Steel Diameter at smallest part 3.85 sq in

Area supported by each stay 306 sq in Working pressure by rules 131 Material of Front plates at bottom Steel Thickness 5/64" Material of

Lower back plate Steel Thickness 13/16" Greatest pitch of stays 14" Working pressure of plate by rules 146 Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 5/64" Back 3/4" Mean pitch of stays 13 1/2" x 9" Pitch across wide

water spaces 14" Working pressures by rules 145 Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 8 1/2" x 1/2" (2) Length as per rule 2'-4 3/4" Distance apart 9 1/4" Number and pitch of Stays in each 2 @ 9"

Working pressure by rules 144 Superheater or Steam chest: how connected to boiler None Can the superheater be shut off and the boiler worked

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

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

Survey No. 2315 attached

A. F. CRAIG & CO. LTD.
The foregoing is a correct description,

Wm. F. Murray Manufacturer.

Dates of Survey } During progress of 1919 Apr 15-29 May 16-30 June 23 July 9 Aug 5 Is the approved plan of boiler forwarded herewith

while building } During erection on board vessel - - - } Total No. of visits 14

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been built under Special Survey in accordance with the approved plan and the Rules of the Society. The workmanship and materials are of good quality. The boiler has been satisfactorily secured on board.

Survey Fee ... £ 4 : 12 : 0 When applied for, 6-1-1920
Travelling Expenses (if any) £ ... When received, 191
Montgomery 13/3/20
H. H. Fraser
D. C. Barr
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 6-JAN 1920
Assigned See attached machinery report.

