

REPORT ON BOILERS.

No. 73843

THE NOV. 23 1920

Received at London Office
NEWCASTLE-ON-TYNE

Date of writing Report _____ 191 _____ When handed in at Local Office _____ 191 _____ Port of _____

No. in Survey held at _____ Date, First Survey March 8th Last Survey November 14th 1920.
Reg. Book. _____ (Number of Visits 19.) Gross 518
on the S.S. ALFRED HARRISON Tons Net 284

Master _____ Built at Walstead By whom built Swan Hunter & Wigham Richardson Ltd 1149 When built 1920

Engines made at Coatbridge N B By whom made Wm Beardmore & Co Ltd No 558 When made 1920

Boilers made at Newcastle Type By whom made Swan Hunter, Wigham Richardson Ltd 1149 When made 1920

Registered Horse Power 78 Owners Harold Harrison Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Spencer & Sons Ltd

(Letter for record S) Total Heating Surface of Boilers 1415^{sq} Is forced draft fitted No No. and Description of

Boilers One S.E. Cylindrical Multi Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 11 June 20

No. of Certificate 9421 Can each boiler be worked separately _____ Area of fire grate in each boiler 46.5^{sq} No. and Description of

safety valves to each boiler 2 Direct Spring Area of each valve 4.91^{sq} Pressure to which they are adjusted 185 lbs 23/7/20

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 11" Mean dia. of boilers 12'-6" Length 10'-6"

Material of shell plates steel Thickness 31/32 Range of tensile strength 29/34 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams DR Lap long. seams TR DB S Diameter of rivet holes in long. seams 1" Pitch of rivets 4"

Lap of plates or width of butt straps 15" Per centages of strength of longitudinal joint rivets 86.1% Working pressure of shell by

rules 182 lbs Size of manhole in shell 16" x 12" Size of compensating ring 8 1/4 x 3 1/2 No. and Description of Furnaces in each

boiler 3 Deighton Corrugated Material steel Outside diameter 3'-1" Length of plain part _____ Thickness of plates crown 15/32

Description of longitudinal joint weld No. of strengthening rings _____ Working pressure of furnace by the rules 187 lbs Combustion chamber

plates: Material steel Thickness: Sides 21/32 Back 31/32 Top 31/32 Bottom 23/32 Pitch of stays to ditto: Sides 9 1/8 x 9 Back 8 3/4 x 8 3/4

Top 9 x 9 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 182 lbs Material of stays steel Area at

smallest part 2.03 Area supported by each stay 82 1/8 Working pressure by rules 190 lbs End plates in steam space: Material steel Thickness 1 1/16

Pitch of stays 1 7/8 x 16 How are stays secured DR & W Working pressure by rules 183 lbs Material of stays steel Area at smallest part 5.05

Area supported by each stay 276 Working pressure by rules 190 lbs Material of Front plates at bottom steel Thickness 31/32 Material of

Lower back plate steel Thickness 15/16 Greatest pitch of stays 1 4/4 Working pressure of plate by rules 220 lbs Diameter of tubes 3 1/4

Pitch of tubes 4 1/2 x 4 3/8 Material of tube plates steel Thickness: Front 31/32 Back 13/16 Mean pitch of stays 1 1/8 Pitch across wide

water spaces 1 4/4 Working pressures by rules 189 lbs Girders to Chamber tops: Material steel Depth and thickness of

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

Working pressure by rules 182 lbs Steam dome: description of joint to shell None % 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 _____

SUPERHEATER. Type None Date of Ap. reval 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 _____

SWAN, HUNTER & WIGHAM RICHARDSON, LTD.

G. J. Sweet

The foregoing is a correct description,

Manufacturer.

1920.

Dates of Survey: During progress of work in shops - - - Mar. 8, 10, 15, Apr. 20, 23, 26, 28, May 3, 7, 21, June 9, 11. Is the approved plan of boiler forwarded herewith Yes

while building: During erection on board vessel - - - July 14, 15, 20, 22, 23, Nov. 16, 17. Total No. of visits 19.

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

The Boilers built under Special Survey the material and workmanship found good and efficient

The Boilers tested under 360 lbs hydraulic pressure and found satisfactory. The tubes fitted with the necessary mountings, fitted up on board the vessel, tested under steam & found satisfactory

Survey Fee £ _____ When applied for, 22 NOV 1920

Balance of FE fee £ 5.17 When received, 24.12.20

Travelling Expenses (if any) £ _____

Committee's Minute _____ FRI. DEC. 3 1920

Assigned _____



010584-010604-0048

If a Report also sent on the Hull of the Ship

11m.1.16.-C. Copyable Ink.

RIFSNES



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