

Rpt. 5a.

REPORT ON BOILERS.

Hull Rpt No. 32319

No. 11252.

Date of writing Report 27th Dec 1919 When handed in at Local Office 31st Nov 1919 Port of Grimsby
No. in Survey held at Lincoln Date, First Survey 20th Dec 1918 Last Survey 24th Oct 1919
Reg. Book. on the Boiler for HM Drifter "RADIATION" (Number of Visits 23) Gross 95.97
Master Bye Goble Built at Bye Goble By whom built J. L. Smith Tons Net 37.31
Engines made at Souby Bridge By whom made Pollit & Wiggell, Ltd. When built 1920
Boilers made at Lincoln By whom made Ruston & Hornsby (432/2) When made 1919
Registered Horse Power Admiralty Port belonging to Admiralty

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Stewart & Sons
(Letter for record 5) Total Heating Surface of Boilers 8144 Is forced draft fitted 40 No. and Description of Boilers One Simplex Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 24.10.19
No. of Certificate 184 Can each boiler be worked separately ✓ Area of fire grate in each boiler 305 No. and Description of safety valves to each boiler 2 Direct Spring Area of each valve 3.982 Pressure to which they are adjusted 180 lb
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 alt. 7" Mean dia. of boilers 10'-0" Length 9'-6"
Material of shell plates Steel Thickness 27/32 Range of tensile strength 28/32 tons Are the shell plates welded or flanged 40
Descrip. of riveting: cir. seams lap & r long. seams butt & r Diameter of rivet holes in long. seams 15/16 Pitch of rivets 7"
Pitch of plates & width of butt straps 13 3/4" Per centages of strength of longitudinal joint 86.9 Working pressure of shell by rules 182 lb Size of manhole in shell 16 x 12 Size of compensating ring 6 1/2 x 2 1/2 No. and Description of Furnaces in each boiler 2 Plain Material Steel Outside diameter 3'-2" Length of plain part 6'-0 9/16" Thickness of plates 7/8" Description of longitudinal joint lap & r No. of strengthening rings 40 Working pressure of furnace by the rules 176 lb Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 9/16" Pitch of stays to ditto: Sides 8 x 7 1/2 Back 8 x 7 1/2
Top 8 x 7 If stays are fitted with nuts or riveted heads nut & b Working pressure by rules 182 lb Material of stays Steel Area at smallest part 1.480 Area supported by each stay 600 Working pressure by rules 197 End plates in steam space: Material Steel Thickness 7/8"
Pitch of stays 14 x 14 How are stays secured friction Working pressure by rules 182 lb Material of stays Steel Area at smallest part 3.40
Area supported by each stay 1960 Working pressure by rules 182 lb Material of Front plates at bottom Steel Thickness 7/8" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 13 x 7 1/2 Working pressure of plate by rules 230 lb Diameter of tubes 3 1/2"
Pitch of tubes 4 1/2 x 4 3/8 Material of tube plates Steel Thickness: Front 7/8" Back 7/16" Mean pitch of stays 9.9" Pitch across wide water spaces 13 1/2 (18 1/2) Working pressures by rules 173 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 x 14 Length as per rule 28 1/2 Distance apart 7 Number and pitch of Stays in each 208
Working pressure by rules 190 lb Steam dome: description of joint to shell none % of strength of joint
Diameter 10 Thickness of shell plates 7/8" Material Steel Description of longitudinal joint lap & r Diam. of rivet holes 15/16"
Pitch of rivets 7" Working pressure of shell by rules 190 lb Crown plates 7/8" Thickness 7/8" How stayed by stays
SUPERHEATER. Type None Date of Approval of Plan Jan 9. 21 Tested by Hydraulic Pressure to 360 lb
Date of Test 27.10.19 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
Diameter of Safety Valve 1 1/2" Pressure to which each is adjusted 180 lb Is Easing Gear fitted yes

The foregoing is a correct description,

Ruston & Hornsby Ltd Manufacturer.

Dates During progress of 20th Dec 1918 Jan 9. 21 Feb 4. 1919
Survey work in shops - Apr 3. 19 May 8. 14 June 18. 30 July 4. 11. 17. 25
while During erection on May 12. 22 Sep 3. 17 Oct 7. 11. 24
building board vessel - - -
Is the approved plan of boiler forwarded herewith per C. D. Barber
Total No. of visits 23

GENERAL REMARKS

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

This boiler has been constructed under special survey and in accordance with approved plan. Material & workmanship are good and together with mountings found satisfactory under hydraulic test. The boiler has been properly tested & secured on board the Drifter "Radiation", and its safety valves adjusted under steam and tested for accumulation.

Survey Fee ... £ 4.10 When applied for 27th Oct 1919
Travelling Expenses (if any) £ : : When received 19.12.1919

Committee's Minute TUE. JAN. 4 1921

signed

Engineer Surveyor to Lloyd's Register of Shipping.

P. Fitzgerald
R. H. H. H.