

REPORT ON BOILERS.

No. 27087

Received at London Office WED. 7 NOV. 1917

Date of writing Report 22nd Oct 1917 When handed in at Local Office 24th Oct 1917 Port of SUNDERLAND.
 No. in Survey held at SUNDERLAND. Date, First Survey See Machinery report Last Survey 191
 Reg. Book. 107 on the Donkey Boiler of S.S. Tenterden (Number of Visits) (Gross 4127 Tons) (Net 2589)
 Master Buckley Built at Sunderland By whom built J. L. Thompson & Sons Ltd When built 1917
 Engines made at Sunderland By whom made J. Dickinson & Sons Ltd. When made 1917
 Boilers made at " By whom made " When made 1917
 Registered Horse Power " Owners Norfolk & North American S.S. Co Ltd Port belonging to London

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

Letter for record 13 Total Heating Surface of Boilers 731 sq ft Is forced draft fitted No No. and Description of Boilers one single-ended Working Pressure 90 lbs Tested by hydraulic pressure to 180 lbs Date of test 11/8/17

No. of Certificate 3419 Can each boiler be worked separately Yes Area of fire grate in each boiler 26.5 sq ft No. and Description of Safety valves to each boiler 2 direct spring Area of each valve 4.9 sq in Pressure to which they are adjusted 90 lbs

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 on deck Spande dia. of boilers 9'-10 7/8" Length 9'-6"

Material of shell plates steel Thickness 9/16" Range of tensile strength 28.5-32 tons Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams S. r. loop long. seams T. r. C. Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3 3/16"

Gap of plates or width of butt straps 6 3/8" Per centages of strength of longitudinal joint rivets 87.83 Working pressure of shell by rules 90.75 lbs

Size of manhole in shell 16" x 12" Size of compensating ring 7 7/8" x 9 1/16" No. and Description of Furnaces in each boiler 2 plain

Material steel Outside diameter 34 1/2" Length of plain part 70" Thickness of plates 1/2" crown 1/2" bottom 1/2"

Description of longitudinal joint S. butt strap No. of strengthening rings 1 Working pressure of furnace by the rules 105.5 lbs Combustion chamber

Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8" Pitch of stays to ditto: Sides 10 7/8" x 1 1/2" Back 2 1/2" x 10"

Top 1 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 97.25 lbs Material of stays steel Diameter at smallest part 1.45"

Area supported by each stay 125 sq in Working pressure by rules 93 lbs End plates in steam space: Material steel Thickness 2 1/2" Diameter at smallest part 2.03"

Pitch of stays 14 1/2" x 15" How are stays secured d. n. r. w. Working pressure by rules 93.5 lbs Material of stays steel Diameter at smallest part 2.03"

Area supported by each stay 217.5 sq in Working pressure by rules 97 lbs Material of Front plates at bottom steel Thickness 2 3/32" Material of lower back plate steel

Thickness 2 1/32" Greatest pitch of stays 12 1/4" x 12 1/2" Working pressure of plate by rules 97.25 lbs Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 2 3/32" Back 9/16" Mean pitch of stays 9" x 9" Pitch across wide water spaces 1 3/4"

Working pressures by rules 93.5 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 5 5/8" x 1 1/4"

Length as per rule 25 23/32" Distance apart 7 1/2" Number and pitch of Stays in each 1

Working pressure by rules 102.5 lbs Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately Yes

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

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

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

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

The foregoing is a correct description,
J. Spencer & Sons, Limited. Manufacturer.
Archives

Dates of Survey: During progress of work in shops - - see Machinery report Is the approved plan of boiler forwarded herewith Yes
 while building: During erection on board vessel - - - see Machinery report Total No. of visits 1

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

This boiler has been built under special survey the materials used are good, and the workmanship is satisfactory.

Survey Fee ... £ charged on Machinery report When applied for, 191
 Travelling Expenses (if any) £ : When received, 191

Charles Cooper
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUE. NOV. 13 1917.

Assigned

