

REPORT ON BOILERS.

No. 10497

Received at London Office

Surveying Report 8. 10. 1919 When handed in at Local Office 8. 10. 1919 Port of *Middlesbrough*
 Survey held at *Stockton-on-Tees* Date, First Survey *12th April* Last Survey *7th October 1919*
 on the *Admiralty Tug. "St. Arstell"*
 Built at *Lt. Yarmouth* By whom built *Crabtree & Co* No 175 When built *1920*
 By whom made *Crabtree & Co.* When made *1920.*
 By whom made *Thorn Riley Bros Ltd* Nos *5167* When made *1919*
 Owners *Admiralty* Port belonging to *London*

TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Thorn J. Spencer & Sons*
 for record (S) Total Heating Surface of Boilers *3384* Is forced draft fitted *yes (Hawkins)* No. and Description of
Two single ended Working Pressure *180* Tested by hydraulic pressure to *360* Date of test *9.9.19*
 Certificate *6029* Can each boiler be worked separately *Yes.* Area of fire grate in each boiler *43.5* No. and Description of
 valves to each boiler *Two Spring Loaded* Area of each valve *4.06* Pressure to which they are adjusted *183 lbs.*
 fitted with easing gear *Yes.* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *✓*
 distance between boilers or uptakes and bunkers or woodwork *12"* Inside dia. of boilers *12'-6"* Length *11'-0"*
 of shell plates *Steel* Thickness *1 1/2"* Range of tensile strength *28-32* Are the shell plates welded or flanged *no*
 of riveting: cir. seams *2 R. lap* long. seams *2 B-3 Riv* Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *7 1/8"*
 width of butt straps *16" x 25/32"* Per centages of strength of longitudinal joint rivets *89.6* Working pressure of shell by
 plate *85.09*
 Size of manhole in shell *20" x 16"* Size of compensating ring *5 1/2" x 1 1/2"* No. and Description of Furnaces in each
3 Morrison Material *steel* Outside diameter *39 1/4"* Length of plain part top *✓* Thickness of plates crown *1 1/2"*
 bottom *2"*
 of longitudinal joint *Weld* No. of strengthening rings *✓* Working pressure of furnace by the rules *192* Combustion chamber
 Material *Steel* Thickness: Sides *2 1/32"* Back *2 1/32"* Top *2 1/32"* Bottom *3/4"* Pitch of stays to ditto: Sides *8" x 8 1/2"* Back *9 1/2" x 8 1/2"*
 if stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *200* Material of stays *steel* Area at
 top part *1.73* Area supported by each stay *74* Working pressure by rules *187* End plates in steam space: Material *steel* Thickness *1 1/8"*
 of stays *18" x 18"* How are stays secured *nuts & washers* Working pressure by rules *185* Material of stays *steel* Area at smallest part *6.33*
 supported by each stay *288* Working pressure by rules *229* Material of Front plates at bottom *steel* Thickness *1 5/16"* Material of
 back plate *steel* Thickness *27/32"* Greatest pitch of stays *14" x 8 1/2"* Working pressure of plate by rules *188* Diameter of tubes *2 1/2"*
 of tubes *3 3/4" x 3 5/8"* Material of tube plates *steel* Thickness: Front *1 5/16"* Back *2 3/32"* Mean pitch of stays *8 3/8"* Pitch across wide
 spaces *13 1/2"* Working pressures by rules *185* Girders to Chamber tops: Material *steel* Depth and thickness of
 at centre *7 1/2" x 1 1/4"* Length as per rule *30 1/2"* Distance apart *8 3/4"* Number and pitch of Stays in each *2 @ 8 1/2"*
 Working pressure by rules *184* Steam dome: description of joint to shell *none* % of strength of joint
 Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Working pressure of shell by rules Crown plates Thickness How stayed

REHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,

FOR RILEY BROS. (BOILERMAKERS) LTD. Manufacturer.

During progress of work in shops - *Apr 12-17-25 May 8-14-23 Jul 4-9-15-26 Aug. 1-6-8-12* Is the approved plan of boiler forwarded herewith *yes*
 During erection on board vessel - *27.30. Sep. 9. Oct 7.* Total No. of visits *17*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been built under*
ial survey, are of good materials and workmanship and on completion were tested by
hydraulic pressure with satisfactory results

Survey Fee ... £ *11-6-0* When applied for, *Monthly* 19.
 Travelling Expenses (if any) £ ... When received, 19.

Committee's Minute

Signed

FRI OCT 29 1920

Wm Morrison & Robert Rae
 Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
 Foundation

note: - drawings to be supplied by Engineer

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