

for vessel building by Messrs Smiths Dock Co Ltd Newcastle

# REPORT ON BOILERS.

No. 2534

Received at London Office

pt. 5a.

Date of writing Report 3/12/19 When handed in at Local Office 4 - DEC 1919 Port of Newcastle on Tyne  
No. in Survey held at Newcastle Date, First Survey 2nd Oct 1919 Last Survey 1st December 1919  
Reg. Book. (Number of Visits 5)  
on the Horizontal Hull Boilers No 5149.  
(originally constructed under inspection of Works Vertical Bureau)  
Built at By whom built When built  
Engines made at By whom made When made  
Boilers made at Newcastle By whom made Messrs Hawthorne Leslie & Co Ltd When made 1919  
Registered Horse Power Owners Port belonging to

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

Letter for record ) Total Heating Surface of Boilers 5104 sq ft Is forced draft fitted No. and Description of  
Boilers 2 2 1/2" horizontal single Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 1/12/19  
No. of Certificate 9834 Can each boiler be worked separately Area of fire grate in each boiler 40 sq ft No. and Description of  
Safety valves to each boiler Area of each valve Pressure to which they are adjusted  
Are they fitted with easing gear 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  
Material of shell plates steel Thickness 1 1/2" Range of tensile strength 29/32 Are the shell plates welded or flanged No  
Descrip. of riveting: cir. seams OR Lap. long. seams OR Double strap Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 3/4" 4 1/2"  
Pitch of plates or width of butt straps 1 1/2" Per centages of strength of longitudinal joint rivets 89.5% Working pressure of shell by  
rules 180 lbs Size of manhole in shell 16" x 12" Size of compensating ring 16" No. and Description of Furnaces in each  
Boiler 4 Doughton Material steel Outside diameter 44 1/4" Length of plain part top 18 1/4" Thickness of plates crown 1 1/2"  
Description of longitudinal joint welded No. of strengthening rings None Working pressure of furnace by the rules 180 lbs Combustion chamber  
plates: Material steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 1" Pitch of stays to ditto: Sides 8 x 8" Back 7 1/4 x 5 1/4"  
Top 8 x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 203 lbs Material of stays steel Area at  
smallest part 1 1/2" Area supported by each stay 60" Working pressure by rules 197 lbs End plates in steam space: Material steel Thickness 1 1/2"  
Pitch of stays 19 1/4" How are stays secured On in Working pressure by rules 197 lbs Material of stays steel Area at smallest part 4 85"  
Area supported by each stay 434 5" Working pressure by rules 197 lbs Material of Front plates at bottom steel Thickness 1" Material of  
Lower back plate steel Thickness 1 1/2" Greatest pitch of stays 5" x 8 3/4" Working pressure of plate by rules 202 lbs Diameter of tubes 3 1/4"  
Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 1" Back 1 1/2" Mean pitch of stays 9" Pitch across wide  
water spaces 14 1/2" Working pressures by rules 180 lbs Girders to Chamber tops: Material steel Depth and thickness of  
Girder at centre 9 1/4" x 1 1/4" Length as per rule 2' 11 1/2" (Distance apart 8" Number and pitch of Stays in each 23 : 8"  
Working pressure by rules 180 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 Date of Approval 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



The foregoing is a correct description,

Manufacturer.

Dates During progress of work in shops - - - 1919 2. 6. 9. Nov 27 Dec 5  
while During erection on board vessel - - -  
building Is the approved plan of boiler forwarded herewith Yes.  
Total No. of visits 5.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been examined, the scantlings checked and found in accordance with the approved plan and were tested by hydraulic pressure to 360 lbs and were found good & sound in every respect.

Survey Fee £ 12 : 1 : 0 When applied for, 5.12.19  
Travelling Expenses (if any) £ : : When received, 1919

TUE. SEP. 7 1920

Committee's Minute

Assigned

See Mdb 10782

Engineer Surveyor to Lloyd's Register of Shipping.