

# REPORT ON BOILERS.

No. 33135  
THU. 5 JAN. 1922

Received at London Office

Date of writing Report 19 When handed in at Local Office 4/1/1922 Port of Hull

No. in Survey held at Date, First Survey 17/5/20 Last Survey 3/1/1922

Reg. Book. (Number of Visits) Gross 4499 Net 2847

on the **S.S. "CITY OF DURBAN."**

Master Built at Hull By whom built Earle Sp & Eng Co Ltd When built 1921

Engines made at Hull By whom made do When made 1921

Boilers made at do By whom made do When made 1921

Registered Horse Power Owners Ellerman Lines Ltd Port belonging to Liverpool

## CENTRE. MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel J. SPENCER & SONS  
(2770 + 2770 + 2255 = 7825)

(Letter for record S) Total Heating Surface of Boilers 7825 sq ft Is forced draft fitted YES

Boilers 3 CYL MBLTR (SEE MACH REPORT) Working Pressure 225 LB/SQ IN Tested by hydraulic pressure to 450 LB/SQ IN Date of test 30/7/20

No. of Certificate 3445 Can each boiler be worked separately YES Area of fire grate in each boiler 53 sq ft No. and Description of safety valves to each boiler 2 SPRING LOADED Area of each valve 5.939 Pressure to which they are adjusted 230 LB/SQ IN

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 4'-6" Mean dia. of boilers 13'-9" Length 12'-3"

Material of shell plates STEEL Thickness 1 1/2" Range of tensile strength 30 to 34 TONS Are the shell plates welded or flanged NO

Descrip. of riveting: cir. seams DOUBLER LONG. seams T.R.I.B.S. Diameter of rivet holes in long. seams 1 5/8" Pitch of rivets 9 3/8"

Lap of plates or width of butt straps 1'-7 1/2" Per centages of strength of longitudinal joint rivets 85% plate 85.7% Working pressure of shell by rules 227 LB/SQ IN

Size of manhole in shell 16" x 12" Size of compensating ring 9 1/4" x 1 1/2" No. and Description of Furnaces in each boiler 3 DEIGHTONS. Material STEEL Outside diameter 3'-6" Length of plain part top Thickness of plates crown 5" bottom 5"

Description of longitudinal joint WELDED. No. of strengthening rings Working pressure of furnace by the rules 239 LB/SQ IN Combustion chamber plates: Material STEEL Thickness: Sides 25/32" Back 1/8" Top 25/32" Bottom 25/32" Pitch of stays to ditto: Sides 9" x 8 1/2" Back 8 1/2" x 7 1/2"

Top 8 1/2" x 8 1/2" stays are fitted with nuts or WELDED riveted heads BOTH Working pressure by rules 264 Material of stays STEEL Area at smallest part 2.07 sq ft Area supported by each stay 79.8 sq ft Working pressure by rules 233 End plates in steam space: Material STEEL Thickness 1 1/2"

Pitch of stays 1 1/8" x 1 1/2" How are stays secured J NUTS Working pressure by rules 230 Material of stays STEEL Area at smallest part 6.23 sq ft

Area supported by each stay 288 sq ft Working pressure by rules 225 Material of Front plates at bottom STEEL Thickness 1" Material of Lower back plate STEEL Thickness 1 1/8" Greatest pitch of stays 1 1/4" x 7 1/8" Working pressure of plate by rules 229 Diameter of tubes 3"

Pitch of tubes 4 1/4" x 4 1/4" Material of tube plates STEEL Thickness: Front 1" Back 7/8" Mean pitch of stays 10 5/8" Pitch across wide water spaces 13 1/2" Working pressures by rules 238 LB/SQ IN Girders to Chamber tops: Material STEEL Depth and thickness of girder at centre 10 5/8" x 1 1/2" Length as per rule 36 7/8" Distance apart 8 3/8" Number and pitch of Stays in each 32 8 1/2"

Working pressure by rules 234 Steam dome: description of joint to shell % 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. FITTED TO WING BOILERS ONLY.

Type See Mach Rpt. 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

FOR EARLE'S SHIPBUILDING & ENGINEERING CO. LIMITED  
The foregoing is a correct description,  
Manufacturer.

Dates of Survey During progress of work in shops - - - while building During erection on board vessel - - -

See Machinery Report. Is the approved plan of boiler forwarded herewith Total No. of visits

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

Survey Fee ... £ ... When applied for, 19...  
Travelling Expenses (if any) £ ... When received, 19...

Committee's Minute TUE. 10 JAN. 1922

Assigned See Minute on J.B. Rpt

Harbottle  
Engineer Surveyor to Lloyd's Register of Shipping.