

# REPORT ON BOILERS

No. 40971

Received at London Office MAR 23 1921

rpt. 5a.

Date of writing Report 21. 3. 1921 When handed in at Local Office 21. 3. 1921 Port of Glasgow  
Date, First Survey 8. 5. 1919 Last Survey 10. 3. 1921  
(Number of Visits 81 Tons } Gross  
Net

No. in Survey held at Dalnair  
Reg. Book. on the J.S.S. "Cameronia"  
Master Built at Dalnair  
Engines made at Dalnair By whom built Wm Beardmore & Co Ld (584) When built 1921  
Boilers made at Dalnair By whom made Wm Beardmore & Co Ld (584) When made 1921  
Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY—Manufacturers of Steel W. Beardmore & Co Ld.  
Is forced draft fitted yes  
Tested by hydraulic pressure to 385 Date of test 9/4/20  
No. and Description of 21/4/20

(Letter for record (S) Total Heating Surface of Boilers 9721.26 Working Pressure 220 Area of fire grate in each boiler 52.9  
Boilers J.S.S. multitubular  
No. of Certificate 15221 Can each boiler be worked separately yes  
Safety valves to each boiler double, spring loaded Area of each valve 9.62 0" Pressure to which they are adjusted 225  
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 well clear

Material of shell plates steel Thickness 1 32" Range of tensile strength 30 to 34 tons Are the shell plates welded or flanged no  
Descrip. of riveting: cir. seams double lap long. seams tubular butts Diameter of rivet holes in long. seams 1 32" Pitch of rivets 10 1/2"  
Lap of plates or width of butt straps 28 3/8 Per centages of strength of longitudinal joint rivets 92.0  
rules 230 Size of manhole in shell 16" x 12" Size of compensating ring 40" x 36 1/2" x 1 3/8" No. and Description of Furnaces in each  
boiler 4 horizontal Material steel Outside diameter 45 7/8" Length of plain part top 11' 6" bottom 11' 6"  
Description of longitudinal joint weld No. of strengthening rings 23 Bottom 13" Pitch of stays to ditto: Sides 9 5/8" x 9 5/8" Back 10 x 7 3/8"

plates: Material steel Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 13" Working pressure of furnace by the rules 231 Combustion chamber  
Top 4 3/8" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 230 End plates in steam space: Material steel Thickness 1 1/4"  
smallest part 2.03 Area supported by each stay 89" Working pressure by rules 221 Material of stays steel Thickness 1"  
Pitch of stays 17 3/8" x 18" How are stays secured 2 nuts Working pressure of plate by rules 400 Diameter of tubes 2 3/4"

Area supported by each stay 318" Working pressure by rules 231 Material of Front plates at bottom steel Thickness 1" Material of  
Lower back plate steel Thickness 3/32 Greatest pitch of stays 13 3/4" x 18" Working pressure of plate by rules 400 Diameter of tubes 2 3/4"  
Pitch of tubes 4" x 4" Material of tube plates steel Thickness: Front 1" Back 15/16" Mean pitch of stays 10" Pitch across wide  
water spaces 13 3/4" with 1" Working pressures by rules 292 Girders to Chamber tops: Material steel Depth and thickness of  
girder at centre 9 x 7/8" double Length as per rule 30 3/32 Distance apart 8" Number and pitch of stays in each (2) 9 5/8"

Working pressure by rules 260 Steam dome: description of joint to shell none Diam. of rivet holes ✓  
Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ How stayed ✓  
Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Tested by Hydraulic Pressure to 660  
SUPERHEATER. Type Schmidt's Date of Approval of Plan 22 March 1921 Rept. Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes  
Is Easing Gear fitted yes

Date of Test 12 Diameter of Safety Valve 2" for S.E. Boilers 12 E.G. Boilers  
FOR WILLIAM BEARDMORE & CO., LIMITED  
The foregoing is a correct description, Manufacturer.  
Is the approved plan of boiler forwarded herewith yes  
Total No. of visits

Dates of Survey { During progress of work in shops - - }  
while building { During erection on board vessel - - }  
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under special survey, the materials & workmanship are of good description, they have been well fitted on board & tried under steam.

Survey Fee ... £  
Travelling Expenses (if any) £  
When applied for, 19...  
When received, 19...  
Committee's Minute  
Assigned See attached machinery report  
22 MAR 1921  
GLASGOW  
A.M. Macdonald  
Engineer Surveyor to Lloyd's Register of Shipping

