

REPORT ON BOILERS.

No. 1642

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FRI. 7-JUL. 1916

Writing Report 22nd June 1916. When handed in at Local Office 6th July 1916. Port of Barrow-in-Furness
 in Survey held at Barrow-in-Furness Date, First Survey 15th June 1914 Last Survey 19
 on the Twin Screw Icebreaker "J.D. HAZEN" (Number of Visits) Gross Tons }
 Built at Montreal By whom built Messrs Canadian Vickers Ltd. When built 1916
 made at Barrow-in-Furness By whom made Messrs Vickers Ltd when made 1916
 made at Barrow-in-Furness By whom made Messrs Vickers Ltd when made 1916
 Horse Power Owners Imperial Russian Government Port belonging to

LTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel Wm Beardmore & Co Ltd; D Colville & Son Ltd
 for record (S) Total Heating Surface of Boilers 11056 sq ft Is forced draft fitted Yes No. and Description of
Four single ended multitubular Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Dates of test 19/5/16
 Certificates 278 Can each boiler be worked separately Yes Area of fire grate in each boiler 40 sq ft No. and Description of
279 valves to each boiler Two-spring loaded Area of each valve 12.56 sq in Pressure to which they are adjusted X
280 fitted with easing gear X In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes
281 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes
 distance between boilers or uptakes and bunkers or woodwork X Mean dia. of boilers 15'-7 7/16" Length 11'-6"
 of shell plates Steel Thickness 1 7/16" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No
 of riveting: cir. seams D.R. Lap long. seams D.R. Double Butt Diameter of rivet holes in long. seams 1 13/32" Pitch of rivets 10"
 of plates or width of butt straps 22 1/4" Per centages of strength of longitudinal joint rivets 84.4% Working pressure of shell by
210 lbs Size of manhole in shell 20" X 16" Size of compensating ring 3'-6 1/2" X 2'-6 3/4" X 1 7/16" No. and Description of Furnaces in each
3-borrugated Material Steel Outside diameter 4'-3 1/4" Length of plain part top Thickness of plates crown
Weld No. of strengthening rings Working pressure of furnace by the rules 196 lbs Combustion chamber
 Material Steel Thickness: Sides 1 9/32" Back 1 9/32" Top 1 9/32" Bottom 1" Pitch of stays to ditto: Sides 8 3/4" X 7 3/8" Back 8 3/4" X 7 3/8"
2-1 1/4" X 7 3/8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 186 lbs Material of stays Steel Area
 at part 1.44 sq ft Area supported by each stay 64.5 sq ft Working pressure by rules 180 lbs End plates in steam space: Material Steel Thickness 1 1/16"
 of stays 8 X 1 1/8" How are stays secured Double Nuts Working pressure by rules 189 lbs Material of stays Steel Area
 supported by each stay 32.4 sq ft Working pressure by rules 232 lbs Material of Front plates at bottom Steel Thickness 2 7/32" Material of
 back plate Steel Thickness 2 7/32" Greatest pitch of stays 13 1/4" X 8 3/4" Working pressure of plate by rules 195 lbs Diameter of tubes 2 1/2"
 of tubes 3 5/8" Material of tube plates Steel Thickness: Front 2 7/32" Back 1 1/16" Mean pitch of stays 9.66" Pitch across wide
 spaces 12 3/4" Working pressures by rules 190 lbs Girders to Chamber tops: Material Steel Depth and thickness of
 at centre 9 1/2" X 1 1/2" Length as per rule 32" Distance apart 8 3/4" Number and pitch of Stays in each 3-7 3/8"
 ing pressure by rules 210 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked
 Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 fened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 ing pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

FOR VICKERS LIMITED.
 The foregoing is a correct description.

During progress of (May 1916) 1, 3, 6, 8, 10, 14, 15, 17, 20, 22, 27, 28, 30 April 4, 7, 10, 15, 18, 20, 26, 28.
 work in shops - 1, 3, 5, 6, 9, 12, 15, 19, 22, 24, 27, 30. June 1, 3, 6, 7. Is the approved plan of boilers forwarded herewith Yes
 During erection on board vessel - 14, 21, 24. July 4th
 Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been
 instructed under special survey, & the materials & workmanship
 sound & good. They have been tested by hydraulic pressure to 360
 lbs per sq in. found tight & sound at that pressure. They are being
 consigned to Montreal to be fitted on board the vessel there. For opinions
 as to class, see Machinery Report.

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

John Houston
 Engineer, Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. 23 JUN. 1922

Signed

FRI. JUL. 14 1922