Old Rpt. 25735

Rpt. 5a.

REPORT ON BOILERS.

No. 64158

Received at London Office THU. MAY 8 – 1913

Date of writing Report 3rd May 1913 When handed in at Local Office MAY 7 1913 19 Port of Newcastle on Tyne

No. in Reg. Book. 75 (Sup) Survey held at Newcastle Date, First Survey 13th Mar. 13 Last Survey ~~24th Sept.~~ 23 June 1913 (Number of Visits 11)

on the Steel screw steamer "Novgorod" Tons Gross 5718 Net 3773

Master Built at Sunderland By whom built Sir J. Laing & Sons Ld When built 1913

Engines made at Newcastle By whom made Swan, Hunter & Wigham Richardson Ld when made 1913

Boilers made at Do By whom made Do Do when made 1913

Registered Horse Power Owners Russian Volunteer Fleet Association Port belonging to Odessa

MULTITUBULAR BOILERS — ~~MAIN, AUXILIARY OR~~ DONKEY. — No. 402.

Manufacturers of Steel J. Spencer & Sons (Letter for record P.) **Total Heating Surface of Boilers** 1006 ☐ft Is forced draft fitted No **No. and Description of Boilers** 1 S.E. Multr. Cylr. **Working Pressure** 100 lb. Tested by hydraulic pressure to 200 lb. Date of test 24. 4. 13

No. of Certificate 8483 Can each boiler be worked separately ✓ **Area of fire grate in each boiler** 35 ☐ft No. and Description of safety valves to each boiler 2 direct spring loaded Area of each valve 4.06 ☐" Pressure to which they are adjusted 105 lbs

Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers ~~or uptakes and~~ bunkers ~~or woodwork~~ 12" ~~Mean~~ Inside dia. of boilers 10' - 10 5/8" Length 9' - 6"

Material of shell plates Steel Thickness 11/16" Range of tensile strength 28 3/4 / 32 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams d. r. lap long. seams t. r. lap Diameter of rivet holes in long. seams 17/32" Pitch of rivets 3 7/8"

Lap of plates ~~or width of butt straps~~ 4 7/8" Per centages of strength of longitudinal joint rivets 80.4 plate 43.3 Working pressure of shell by rules 106 lbs Size of manhole in shell 16" x 12" Size of compensating ring 4 1/2" x 11/16" **No. and Description of Furnaces in each boiler** 2 Plain Material Steel Outside diameter 38 5/8" Length of plain part top 42 1/2" bottom 80" Thickness of plates crown 9/16" bottom

Description of longitudinal joint d. b. strap No. of strengthening rings ✓ Working pressure of furnace by the rules 110 lbs Combustion chamber plates: Material Steel Thickness: Sides 15/32" Back 15/32" Top 15/32" Bottom 13/16" Pitch of stays to ditto: Sides 4 7/8" x 4 7/8" Back 4 7/8" x 4 1/2" Top 4 7/8" x 4 7/8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 108 lbs Material of stays Iron ~~Diameter~~ Area at smallest part 1.19 ☐" Area supported by each stay 62 ☐" Working pressure by rules 115 lbs End plates in steam space: Material Steel Thickness 13/16" Pitch of stays 15 1/4" x 14" How are stays secured d. n. washers Working pressure by rules 119.8 lbs Material of stays Steel ~~Diameter~~ Area at smallest part 3.26 ☐" Area supported by each stay 259.25 ☐" Working pressure by rules 130 lb Material of Front plates at bottom Steel Thickness 13/16" Material of lower back plate Steel Thickness 13/16" Greatest pitch of stays 13" x 7 7/8" Working pressure of plate by rules 197.5 lbs Diameter of tubes 3" Pitch of tubes 4 1/8" x 4 1/4" Material of tube plates Steel Thickness: Front 13/16" Back 19/32" Mean pitch of stays 12 3/4" x 8 1/4" Pitch across wide water spaces 14" Working pressures by rules 120.7 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 1/2" x 1" Length as per rule 24 3/16" Distance apart 4 7/8" Number and pitch of Stays in each 2 - 7 7/8" Working pressure by rules 111.4 lb Superheater or Steam chest; how connected to boiler ✓ Can the superheater be shut off and the boiler worked separately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓ If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓ Working pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

The foregoing is a correct description,

FOR SWAN, HUNTER & WIGHAM RICHARDSON LTD. G. F. Twery DIRECTOR

Manufacturer.

Dates of Survey while building: During progress of work in shops - - 1913 Mar 13.17.27. Apl. 1.4.14.18.24. During erection on board vessel - - See machinery report

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits 8

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

This boiler has been built under special survey: the material & workmanship is good. It has been efficiently mounted & fitted on board. The safety valves are to be adjusted at Sunderland (surveyors advised)

The boiler has been satisfactorily fitted on the main deck of the vessel & its safety valves adjusted as above.

Survey Fee ... ... £ ~~2~~ : 2 : When applied for See Mchy Report 19

Travelling Expenses (if any)) £ : : When received 19

adjusting washers:- F 5/16 A 3/8

Wm Cowie Lewis Davis.

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

Committee's Minute TUE. JUL. 8 – 1913

Signed See minute on Sld N. 25735

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