Rpt. 5b.

REPORT ON ~~BOILERS~~ AIR RECEIVER. No. 22

Received at London Office 30 JUL 1928

Date of writing Report 26TH JULY 1928 When handed in at Local Office ..... 19 .... Port of LENINGRAD

No. in Reg. Book ..... Survey held at LENINGRAD Date, First Survey 1ST NOV. 1927 Last Survey 12TH JULY 1928

on the M/S "ALEXEY RYKOFF" (Number of Visits 9) Tons Gross 3615 Net 2097.

Built at LENINGRAD By whom built SEVERNEY SHIPBUILDING YARD Yard No. 299 When built 1928

Engines made at LENINGRAD By whom made RUSSIAN DIESEL WORKS Engine No. 299 When made 1928

WASTE HEAT Boilers made at LENINGRAD By whom made SEVERNEY SHIPBUILDING YARS Boiler No. 299 When made 1928

Owners SOVTORGFLOT Port belonging to LENINGRAD

AIR RECEIVER FOR WASTE HEAT BOILER FUEL BURNING ~~VERTICAL DONKEY BOILER~~.

Made at LENINGRAD By whom made SEVERNEY SHIPBUILDING YARD RECEIVER ~~Boiler~~ No. 299. When made 1928 Where fixed WASTE HEAT BOILER PLATFORM.

Manufacturers of Steel MARIOOPOL STATE STEEL WORKS.

Total Heating Surface of Boiler ✓ Is forced draught fitted ✓ Coal or Oil fired ✓

No. and Description RECEIVER ~~of Boilers~~ ONE RIVETED STEEL AIR RECEIVER **Working pressure** 10 KG/CM²

Tested by hydraulic pressure to 20 KG/CM² Date of test 19/4/28 No. of Certificate 1011

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each RECEIVER ~~boiler~~ ONE SPRING LOADED ✓

Area of each set of valves per boiler { per rule ✓ as fitted APPROVED 26/7/27 } Pressure to which they are adjusted NOT ADJUSTED Are they fitted with easing gear ✓

State whether steam from main boilers can enter the donkey boiler ✓ Smallest distance between boiler or uptake and bunkers of woodwork ✓ Is oil fuel carried in the double bottom under boiler ✓ Smallest distance between base of boiler and tank top plating ✓ Is the base of the boiler insulated ✓ Largest internal dia. of RECEIVER ~~boiler~~ 595 M/M Height 1692 M/M

Shell plates: Material STEEL Tensile strength 44/51 KG/CM² Thickness 10 M/M ✓

Are the shell plates welded or flanged NO Description of riveting: circ. seams { end SINGLE ✓ inter. ✓ } long. seams D.R LAP. ✓

Dia. of rivet holes in { circ. seams 20 M/M ✓ long. seams 16.6 M/M ✓ } Pitch of rivets { 49.5 M/M ✓ 50.5 M/M ✓ } Percentage of strength of circ. seams { plate 59.5 % rivets 55.7 % } of Longitudinal joint { plate 67.3% rivets 69.5% combined ✓ }

Working pressure of shell by rules 20.3 KG/CM² Thickness of butt straps { outer ✓ inner ✓ }

ENDS ~~Shell Crown~~: Whether complete hemisphere, dished partial spherical, or flat PARTIAL SPHERICAL ✓ Material STEEL

Tensile strength 41/47 KG/CM² Thickness 10 M/M ✓ Radius 585 M/M ✓ Working pressure by rules 18 KG/CM²

Description of Furnace: Plain, spherical, or dished crown ✓ Material ✓ Tensile strength ✓

Thickness ✓ External diameter { top ✓ bottom ✓ } Length as per rule ✓ Working pressure by rules ✓

Pitch of support stays circumferentially ✓ and vertically ✓ Are stays fitted with nuts or riveted over ✓

Diameter of stays over thread ✓ Radius of spherical or dished furnace crown ✓ Working pressure by rule ✓

Thickness of Ogee Ring ✓ Diameter as per rule { D ✓ d ✓ } Working pressure by rule ✓

Combustion Chamber: Material ✓ Tensile strength ✓ Thickness of top plate ✓

Radius if dished ✓ Working pressure by rule ✓ Thickness of back plate ✓ Diameter if circular ✓

Length as per rule ✓ Pitch of stays ✓ Are stays fitted with nuts or riveted over ✓

Diameter of stays over thread ✓ Working pressure of back plate by rules ✓

Tube Plates: Material { front ✓ back ✓ } Tensile strength { ✓ } Thickness { ✓ } Mean pitch of stay tubes in nests ✓

If comprising shell, Dia. as per rule { front ✓ back ✓ } Pitch in outer vertical rows { ✓ } Dia. of tube holes FRONT { stay ✓ plain ✓ } BACK { stay ✓ plain ✓ }

Is each alternate tube in outer vertical rows a stay tube ✓ Working pressure by rules { front ✓ back ✓ }

Girders to combustion chamber tops: Material ✓ Tensile strength ✓

Depth and thickness of girder at centre ✓ Length as per rule ✓

Distance apart ✓ No. and pitch of stays in each ✓ Working pressure by rule ✓

Crown stays: *Material* ..... *Tensile strength* ..... *Diameter* { *at body of stay,* ..... *or over threads* ..... }

No. of threads per inch ..... *Area supported by each stay* ..... *Working pressure by rules* .....

Screw stays: *Material* ..... *Tensile strength* ..... *Diameter* { *at turned off part,* ..... *or over threads* ..... } *No. of threads per inch* .....

Area supported by each stay ..... *Working pressure by rules* ..... *Are the stays drilled at the outer ends* .....

Tubes: *Material* ..... *External diameter* { *plain* ..... *stay* ..... } *Thickness* { ....

No. of threads per inch ..... *Pitch of tubes* ..... *Working pressure by rules* .....

Manhole Compensation: *Size of opening in shell plate* ..... *Section of compensating ring* ..... *No. of rivets and diameter*

of rivet holes ..... *Outer row rivet pitch at ends* ..... *Depth of flange if manhole flanged* .....

Uptake: *External diameter* ..... *Thickness of uptake plate* .....

Cross Tubes: *No.* ..... *External diameters* { .... } *Thickness of plates* .....

Have all the requirements of Sections 14 *to* 23 *inclusive for boilers been complied with* .....

Судостр трест Ленинград

The foregoing is a correct description,

Shishatsky *Manufacturer.*

Dates of Survey while building — *During progress of work in shops* - 6/11/27. 3/11/27. 20/12/27. 29/12/27. 5/1/28. 1/3. 22/3. 19/4.

During erection on board vessel - - 12/7/28

Is the approved plan of boiler forwarded herewith .....
(If not state date of approval.)

Total No. of visits 9

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

This air receiver has been constructed under special survey in accordance with the Rules and approved plans. The materials and workmanship are sound and good, the receiver has now been fitted on board the vessel in a satisfactory manner. The safety valves have not been adjusted on account of the reducing valve in the pipe line between the starting air receivers and this receiver not being in a satisfactory working condition and permitting a higher pressure of air being conveyed to the low pressure receiver than which the safety valves can deal with. The builders state that this will be rectified on the vessels return to Leningrad.

Survey Fee ... ... £ : : } When applied for, ... 19.....

Travelling Expenses (if any) £ : : } When received, ... 19.....

H. McCormick

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute WED. 8 AUG 1928 FRI. 4 JAN 1929

Assigned See S.E. apl. attached