

REPORT ON BOILERS.

No. 22

Received at London Office

30 JUL 1928

Date of writing Report 26th July 1928 When handed in at Local Office 10 Port of LENINGRAD

No. in Reg. Book 1211 Survey held at LENINGRAD Date, First Survey 9-12-26 Last Survey 19th JULY 1928
on the M/S "ALEXEY RYKOFF" (Number of Visits 28) 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
Boilers made at LENINGRAD By whom made SEVERNEY SHIPBUILDING YARD Boiler No. 299 When made 1928
Owners SOVTORGFLOT Port belonging to LENINGRAD.

WASTE HEAT VERTICAL DONKEY BOILER.

Made at LENINGRAD By whom made SEVERNEY SHIPBUILDING YARD Boiler No. 299 When made 1928 Where fixed IN ENGINE ROOM CASING ABOVE ENGINE

Manufacturers of Steel LDORSKY STEEL WORKS NEAR LENINGRAD

Total Heating Surface of Boiler 52.5 SQ. MET. Is forced draught fitted No Coal or Oil fired EX GASES FROM DIESEL ENGINE & ALSO BY OIL IF REQUIRED

No. and Description of Boilers ONE VERTICAL TUBULAR WASTE HEAT BOILER Working pressure 3 kg/cm²

Tested by hydraulic pressure to 6 kg/cm² Date of test 4th OCT. 1927 No. of Certificate 1004

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

Area of each set of valves per boiler } per rule 9607.50 m² Pressure to which they are adjusted 3 kg/cm² Are they fitted with easing gear YES
as fitted 10050.80 m²

State whether steam from main boilers can enter the donkey boiler NONE Smallest distance between boiler or uptake and CASING bunkers

op. woodwork 6" Is oil fuel carried in the double bottom under boiler No Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated YES 18" ASBESTOS + 2 LAYERS OF BRICKS Largest internal dia. of boiler 1520 mm Height 2538 mm

Shell plates: Material STEEL Tensile strength ✓ Thickness 10 mm

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

Dia. of rivet holes in { circ. seams 19 mm Pitch of rivets { 49.3 mm Percentage of strength of circ. seams { plate 61.5% of Longitudinal joint { plate 70.7%
long. seams 16 mm { 54.6 mm { rivets 47% rivets 60%
combined ✓

Working pressure of shell by rules 7.17 kg/cm² Thickness of butt straps { outer ✓
inner ✓

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat FLAT Material STEEL

Tensile strength ✓ Thickness 19 mm Radius ✓ Working pressure by rules 11.8 kg/cm²

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

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

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 ✓ Working pressure by rule ✓
d ✓

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 ✓ Tensile strength { ✓ Thickness { ✓ Mean pitch of stay tubes in nests ✓
back ✓

If comprising shell, Dia. as per rule { front ✓ Pitch in outer vertical rows { ✓ Dia. of tube holes FRONT { stay ✓ BACK { stay ✓
back ✓ { plain ✓ { 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 STEEL External diameter { plain 63.5 mm / stay 63.5 mm Thickness { 3 mm / 5 mm UNDER THREAD

No. of threads per inch 19 LOND. LETTER Pitch of tubes 90 x 90 mm Working pressure by rules 9 kg/cm²

Manhole Compensation: Size of opening in shell plate 300 x 400 mm Section of compensating ring 12 x 54 mm No. of rivets and diameter of rivet holes 20 @ 16 mm ~~Outer~~ ~~near~~ ~~rivet~~ pitch at ends 62 mm 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 YES



The foregoing is a correct description,

A. Speranin

Manufacturer

Dates of Survey while building { During progress of work in shops - { 9/12/26, 14/12/26, 19/27, 6/1, 18/1, 25/1, 4/2, 18/2, 18/2
During erection on board vessel - { 3/3, 28/3, 4/4, 19/4, 3/5, 10/5, 12/5, 19/5, 24/5, 31/5, 20/6
1/11/27, 19/7/28
Is the approved plan of boiler forwarded herewith 14/4/26
(If not state date of approval.) COPY OF PLAN AT LONDON OFFICE
Total No. of visits 28

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

This boiler has been constructed under special survey in accordance with the Rules and approved plans. The materials and workmanship are sound and good. The boiler has been fitted on board the vessel in a satisfactory manner, examined under steam and safety valves adjusted to 3 kg/cm². It is in my opinion eligible to be included with the machinery for record of L.M.C 7-28.

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

Committee's Minute

Assigned

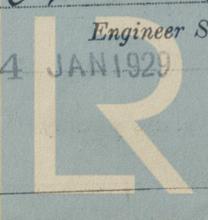
All pt. attached

WED. 8 AUG 1928

FRI. 4 JAN 1929

A. M. Crisick

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation