

REPORT ON BOILERS.

No. 55

Received at London Office

20 JAN 1930

Writing Report 9th JAN. 1930 When handed in at Local Office 10 Port of Leningrad

Survey held at Leningrad Date, First Survey 11/4/29 Last Survey 9th JAN. 1930

Book 751 on the M/S "IAN RUDZUTAK" (Number of Visits 8) Tons { Gross 3870 Net 2255

At Leningrad By whom built SEVERNEY S.B. YARD Yard No. 300 When built 1928

Machines made at Leningrad By whom made RUSSIAN DIESEL WORKS Engine No. 300 When made 1928

Boilers made at Leningrad By whom made SEVERNEY S.B. YARD VERTICAL BOILER No. 316 1928 YARD No. 350 1930

Boilers SOVTORGFLOT Port belonging to Leningrad

WASTE HEAT VERTICAL DONKEY BOILER.

At Leningrad By whom made SEVERNEY SHIPBUILDING YARD Boiler No. 316 When made 1929 Where fixed ENGINE ROOM

Manufacturers of Steel LORISKY STATE STEEL WORKS NEAR Leningrad

Heating Surface of Boiler 62.55 METRES Is forced draught fitted NO Coal or Oil fired OIL

Description of Boilers ONE VERTICAL TUBULAR WASTE HEAT BOILER Working pressure 5 kg/cm²

Tested by hydraulic pressure to 10 kg/cm² Date of test 3/9/29 No. of Certificate 1031

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

Pressure to which they are adjusted 6405 kg/cm² Are they fitted with easing gear

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

Is oil fuel carried in the double bottom under boiler NONE Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated NO Largest internal dia. of boiler 1520 mm Height 2538 mm

Material STEEL Tensile strength 44/51 kg/mm² Thickness 10 mm

Shell plates welded or flanged NO Description of riveting: circ. seams { end SINGLE inter SINGLE long. seams D.R. LAP.

Pitch of rivets 49.3 mm Percentage of strength of circ. seams { plate 61.3% rivets 47% of Longitudinal joint { plate 70.7% rivets 60.7% combined

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

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

Strength 4/47 kg/mm² Thickness 19 mm Radius Working pressure by rules 11.8 kg/cm²

Description of Furnace: Plain, spherical, or dished crown NONE Material Tensile strength

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

Support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Radius of spherical or dished furnace crown Working pressure by rule

Ogee Ring Diameter as per rule { D d Working pressure by rule

Combustion Chamber: Material Tensile strength Thickness of top plate

Working pressure by rule Thickness of back plate Diameter if circular

Pitch of stays Are stays fitted with nuts or riveted over

Working pressure of back plate by rules

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

Pitch in outer vertical rows { front back Dia. of tube holes FRONT { stay plain BACK { stay plain

Working pressure by rules { front back

Stays to combustion chamber tops: Material Tensile strength

Length as per rule

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 THREE /

No. of threads per inch 19 ^{APPROVED LONDON LETTER 9/6/27} Pitch of tubes 90 x 90 mm Working pressure by rules 9 kg/cm²

Manhole Compensation: Size of opening in shell plates 300 x 400 mm Section of compensating ring 54 x 17 mm No. of rivets and dia

of rivet holes 20 @ 16 mm DIA. Outer row 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 ☒



The foregoing is a correct description,

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Dates of Survey { During progress of work in shops - 11/4/29, 18/6/29, 1/7/29, 3/9/29 / while building { During erection on board vessel - 23/9/29, 25/9/29, 6/1/30, 9/1/30

Is the approved plan of boiler forwarded herewith 20/12/29 (If not state date of approval.) COPY AT LONDON / Total No. of visits 8

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

This boiler has been constructed under special survey in accordance with 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 and examined under steam. The safety valves were examined on the 25th Sept. 1929 and on account of them not closing satisfactorily it was recommended that they be overhauled and this report was therefore held up until the vessel returned to Leningrad. The vessel returned to Leningrad early in December for repairs and to have a new Yarrow Donkey Boiler fitted, on the examination of this vertical boiler under steam for the adjusting of the safety valves several of the smoke tubes were found to be leaking, this has been caused by an accumulation of mud round the tube ends and I have recommended that the boiler be cleaned, tubes re-expanded and boiler examined under a hydro test before the safety valves be adjusted.

The Owners representative states that the vessel will return to Leningrad about the 27th Jan. when they will have this attended to, when this work has been satisfactorily carried out the vessel will in my opinion be eligible for record of N. D. B. FITTED 9-92 7/10/3.

Survey Fee R 80 : - : } When applied for, 13TH JAN. 1930 / Travelling Expenses (if any) £ ✓ : : } When received, ✓ 19

H. M. Crick Attlyes

Engineer Surveyor to Lloyd's Register of Shipping

TUE. 4 FEB. 1930

FRI. 28 NOV 1930

Committee's Minute

Assigned

See Lgd. Rpt 54

TUE. 25 FEB 1930

Lloyd's Register Foundation

FRI. 18 JUL 1930