

REPORT ON BOILERS.

No. 47.

Received at London Office

Date of writing Report 4TH DEC. 1929 When handed in at Local Office 19 Port of L E N I N G R A D

No. in Survey held at L E N I N G R A D Date, First Survey 15TH FEB. 1927 Last Survey 19TH NOV. 1929
Reg. Book 8343 on the M/S "COOPERATZIA" (Number of Visits 5) Gross 3767.2 Tons Net 2164.4

Built at L E N I N G R A D By whom built SEVERNEY S.B. YARD Yard No. 307 When built 1929
Engines made at L E N I N G R A D By whom made RUSSIAN DIESEL WORKS Engine No. 307 When made 1929
Boilers made at L E N I N G R A D By whom made SEVERNEY S.B. YARD Boiler No. 307 When made 1929
Owners SOVTORGFLOT Port belonging to L E N I N G R A D

WASTE HEAT VERTICAL ~~DONKEY~~ BOILER.

Made at L E N I N G R A D By whom made SEVERNEY SHIPBUILDING YARD Boiler No. 307 When made 1929 Where fixed ENGINE ROOM.
Manufacturers of Steel JORSKY STATE STEEL WORKS, NEAR L E N I N G R A D

Total Heating Surface of Boiler 52.5 SQ. MET Is forced draught fitted No Coal or Oil fired OIL
No. and 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 18TH JUNE 1929 No. of Certificate 1026

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 6405 Sq. m.
as fitted 10050 Sq. m. Pressure to which they are adjusted 5 kg/cm² Are they fitted with easing gear YES
State whether steam from main boilers can enter the donkey boiler NONE Smallest distance between boiler or uptake and bunkers
CASING
or woodwork 5" Is oil fuel carried in the double bottom under boiler NONE Smallest distance between base of boiler and tank top plating
BOILER PLACED ON PLATFORM
ABOVE MAIN ENGINE Is the base of the boiler insulated No Largest internal dia. of boiler 1520 m Height 2538 m
BASE OF FIRE CHAMBER INSULATED WITH
BRICKS & ASBESTOS

Shell plates: Material STEEL Tensile strength 44/51 kg/mm² Thickness 10 m
Are the shell plates welded or flanged No Description of riveting: circ. seams { end. SINGLE
inter. SINGLE long. seams D. R. LAP.
Dia. of rivet holes in { circ. seams 19 m
long. seams 16 m Pitch of rivets { 49.3 m
54.6 m Percentage of strength of circ. seams { plate 61.3%
rivets 47% of Longitudinal joint { plate 70.7%
rivets 60%
combined ✓

Working pressure of shell by rules 7.17 kg/cm² Thickness of butt straps { outer ✓
inner ✓
Shell Crown: 1 BOTTOM
Whether complete hemisphere, dished partial spherical, or flat FLAT Material STEEL
Tensile strength 41/47 kg/mm² Thickness 19 m Radius ✓ Working pressure by rules 11.8 kg/cm²

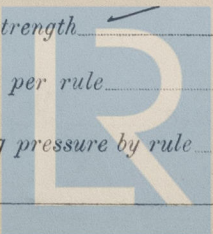
Description of Furnace: Plain, spherical, or dished crown NONE Material ✓ Tensile strength ✓
Thickness ✓ External diameter { top ✓
bottom ✓ Length as per rule ✓ Working pressure by rules ✓
Pitch of support stays circumferentially ✓ and vertically ✓ Are stays fitted with nuts or riveted over ✓
Diameter 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 ✓



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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 Thickness { 3 mm
stay 63.5 mm 5 mm UNDER THREAD

No. of threads per inch 19 ^{APPROVED} 9/6/27 ^{LONDON LETTER} 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 diameter

of rivet holes 20 @ 16 mm O/R 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,

Alphraming 18.11.29 Manufacturer

Dates of Survey { During progress of work in shops - 15.2.27 - 18.2.27
while building { During erection on board vessel - 18.4.29 - 23.5.29 - 28.5.29

Is the approved plan of boiler forwarded herewith 20/12/28
(If not state date of approval.) COPY AT LONDON OFFICE

Total No. of visits 5

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 5 kg/cm². The boiler is in my opinion eligible to be included with the machinery for record of L.M.C. 12-29.

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

H. M. Crivick

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 17 DEC 1929

Assigned

See also 76 lbs
(See also 76 lbs attached)

FRI. 14 FEB 1930

TUE. 25 MAR 1930

FRI. 11 JUL 1930

FRI. 15 AUG 1930

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