

REPORT ON BOILERS.

No. 39.

Received at London Office

31 OCT 1929

Date of writing Report 26th OCT 1929 When handed in at Local Office

19

Port of LENINGRAD

No. in Survey held at LENINGRAD Date, First Survey 11th JUL. 1927 Last Survey 30th SEP. 1929
 Reg. Book 34553 on the M/S "SMOLNY" (Number of Visits 16) Gross 3787 Tons Net 2167

Built at LENINGRAD By whom built SEVERNEY SHIPBUILDING YARD Yard No. 306 When built 1929
 Engines made at LENINGRAD By whom made RUSSIAN DIESEL WORKS Engine No. 306 When made 1929
 WASTE HEAT BOILER
 Boilers made at LENINGRAD By whom made SEVERNEY SHIPBUILDING YARD Boiler No. 306 When made 1929
 Owners SOVTORGFLOT Port belonging to LENINGRAD.

WASTE HEAT
VERTICAL DONKEY BOILER.

Made at LENINGRAD By whom made SEVERNEY SHIPBUILDING YARD Boiler No. 306 When made 1929 Where fixed ENGINE ROOM

Manufacturers of Steel JORSKY STATE STEEL WORKS, NEAR LENINGRAD

Total Heating Surface of Boiler 52.559 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 22/4/28 No. of Certificate 1022

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 86408/100 as fitted 100505/100 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 Smallest distance between boiler or uptake and CASING

or woodwork 5" Is oil fuel carried in the double bottom under boiler Smallest distance between base of boiler and tank top plating

BOILER PLACED ON PLATFORM ABOVE MAIN ENGINE BASE OF FIRE CHAMBER INSULATED WITH BRICKS & ASBESTOS Is the base of the boiler insulated BRICKS & ASBESTOS Largest internal dia. of boiler 1520 mm Height 2538 mm

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

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 mm 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

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

Tensile strength 41/47 kg/mm² 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 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 STEEL External diameter { plain 63.5³/₄ stay 63.5³/₄ Thickness { 3³/₄ 5³/₄ UNDER THREAD

No. of threads per inch 19 ^{APPROVED} _{9/6/27} Pitch of tubes 90 x 90³/₄ Working pressure by rules 9⁴/₅ cm²

Manhole Compensation: Size of openings in shell plate 300 x 400³/₄ Section of compensating ring 54 x 17³/₄ No. of rivets and diameter of rivet holes 20 @ 18³/₄ Outer row rivet pitch at ends 62³/₄ 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,

Manufacturer.

Dates of Survey { During progress of work in shops - - { 11/2/27, 15/2/27, 18/2/27, 19/2/28: 26/1, 16/2, 27/11, 13/2 Is the approved plan of boiler forwarded herewith 20/2/28
while building { During erection on board vessel - - { 1929: 19/2, 19/3, 16/4, 18/4, 16/5, 23/5, 4/6 (If not state date of approval.) COPY AT LONDON OFFICE
Total No. of visits 16

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 5⁴/₅ cm². It is in my opinion eligible to be included with the machinery for record of L.M.C. 10-29.

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

Committee's Minute
Assigned

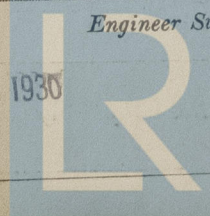
TUE 5 NOV 229

FRI 18 JUL 1930

See Report attached

A. M. Crinick

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation