

REPORT ON WATER TUBE BOILERS.

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 13/5/29 Last Survey 10th OCT 1929
 Reg. Bk. 34553 on the M/S "SMOLNY" Number of Visits 8 Gross 3767 Tons Net 2164
 Master ✓ Built at LENINGRAD By whom built SEVERNEY SHIPBUILDING YARD When built 1929
 Engines made at LENINGRAD By whom made RUSSIAN DIESEL WORKS When made 1929
 Waste Heat Boiler^s made at LENINGRAD By whom made SEVERNEY SHIPBUILDING YARD When made 1929
 Registered Horse Power 692 Owners SOVTORG FLOT Port belonging to LENINGRAD

WATER TUBE BOILERS — ~~MAIN, AUXILIARY, OR DONKEY.~~ — Manufacturers of Steel MARIOPOL & GORSKY STEEL WORKS
 (Letter for Record ✓) Date of Approval of plan 9/4/29 Number and Description or Type of Boilers ONE YARROW TYPE
 Working Pressure 5 kg/cm² Tested by Hydraulic Pressure to 10 kg/cm² Date of Test 22/8/29
 No. of Certificate 030 Can each boiler be worked separately ✓ Total Heating Surface of Boilers 43.2 Sq. METRES
 Is forced draught fitted YES Area of fire grate (coal) in each Boiler ✓ Total grate area of boilers in vessel including Main and Auxiliary MOTOR VESSEL No. and type of burners (oil) in each boiler WITH AIR & STEAM CONNECTION No. and description of safety valves on each boiler TWO SPRING LOADED Area of each valve 2220 Sq. mm Pressure to which they are adjusted NOT ADJUSTED
 Are they fitted with easing gear YES In case of donkey boilers state whether steam from main boilers can enter the donkey boiler ✓
 Smallest distance between boilers 13 1/2" Height of Boiler 2000 mm Width and Length 2370 x 2650 mm
Steam Drums:—Number in each boiler ONE Inside diameter 600 mm Material of plates STEEL Thickness TOP 10 mm / BOTTOM 9 mm
 Range of Tensile Strength 44/50 kg/mm² Are drum shell plates welded or flanged NO Description of riveting:—
 Cir. seams SINGLE long. seams DOUBLE BUTT SINGLE RIVET Diameter of rivet holes in long. seams 16.5 mm Pitch of Rivets 46.5 mm
 Lap of plate or width of butt straps 100 mm Thickness of straps 10 mm Percentage strength of long. joint:—Plate 64.7% Rivet 71%
 Diameter of tube holes in drum 36 mm Pitch of tube holes 62 mm Percentage strength of shell in way of tubes 42%
 If Drum has a flat side state method of staying CIRCULAR Depth and thickness of girders at centre (if fitted) ✓ Distance apart ✓ Number and pitch of stays in each ✓ Working pressure by rules ✓
Steam Drum Heads or Ends:—Material STEEL Thickness 12 mm Radius or how stayed 600 mm
 Size of Manhole or Handhole 400 x 300 mm **Water Drums:**—Number in each boiler TWO Inside Diameter 180 mm
 Material of plates STEEL Thickness 10 mm & 14 mm Range of tensile strength 44/50 kg/mm² Are drum shell plates welded or flanged NO Description of riveting:—Cir. seams SINGLE long. seams SINGLE LAP Diameter of Rivet Holes in long. seams 9.5 mm Pitch of rivets 50.7% Lap of plates or width of butt straps 60 mm Thickness of straps ✓
 Percentage strength of long. joint:—Plate 61.5% Rivet 48% Diameter of tube holes in drum 36 mm Pitch of tube holes 62 mm & 40 mm
 Percentage strength of drum shell in way of tubes 42% **Water Drum Heads or Ends:**—Material STEEL Thickness 10 mm
 Radius or how stayed 600 mm Size of manhole or handhole 400 x 300 mm **Headers or Sections:**—Number ✓ Material ✓ Thickness ✓ Tested by Hydraulic Pressure to ✓ Material of Stays ✓
 Area at smallest part ✓ Area supported by each stay ✓ Working Pressure by Rules ✓ **Tubes:**—Diameter 30 mm 1/2". Thickness 3 mm Number 267 TOTAL **Steam Dome or Collector:**—Description of Joint to Shell ✓
 Percentage strength of Joint ✓ Diameter ✓ Thickness of shell plates ✓ Material ✓
 Description of longitudinal joint ✓ Diameter of Rivet Holes ✓ Pitch of Rivets ✓ Working Pressure of shell by Rules ✓ **Crown or End Plates:**—Material ✓ Thickness ✓ How stayed ✓

SUPERHEATER. Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓
 Date of Test ✓ Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler ✓
 Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is easing gear fitted ✓
 Is a drain cock or valve fitted at lowest point of superheater ✓ Number, diameter, and thickness of tubes ✓
 Spare Gear. Tubes ✓ Gaskets or joints:—Manhole ✓ Handhole ✓ Handhole plates ✓



The foregoing is a correct description,
A. S. Spransky, 15. VIII. 29 Manufacturer.

Dates of Survey ✓ During progress of work in shops 13/5/29, 16/5/29, 4/6/29, 18/6/29, 9/7/29 Is the approved plan of boiler forwarded herewith No APPROVED 9/4/29
 while building ✓ During erection on board vessel 30/7/29, 22/8/29, 19/10/29 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 the rules and approved plans, the materials and workmanship are good. The boiler has been fitted on board the vessel in a satisfactory manner and examined under steam. Safety valves have not been adjusted under steam as the feed water supply has not been controlled automatically. This it is stated will be done when the vessel is at London

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

A. M. Cruick
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 5 NOV '29

Assigned

