

## REPORT ON WATER TUBE BOILERS.

No. 47.

Received at London Office

Date of writing Report 4<sup>th</sup> DEC 1929. When handed in at Local Office

19

Port of LENINGRADNo. in Survey held at LENINGRADDate, First Survey 18<sup>th</sup> MAY 1929 Last Survey 19<sup>th</sup> Nov. 1929Reg. Bk. 18343 on the M/S "COOPERATZIA"Number of Visits 10 Tons 3767.2  
Gross  
Net 2164.4Master Built at LENINGRAD By whom built SEVERNEY S. B. YARD When built 1929Engines made at LENINGRAD By whom made RUSSIAN DIESEL WORKS When made 1929Boilers made at LENINGRAD By whom made SEVERNEY S. B. YARD When made 1929Registered Horse Power Owners SOVTORGFLOT Port belonging to LENINGRADWATER TUBE BOILERS ~~MAIN, AUXILIARY, OR DONKEY.~~ Manufacturers of Steel MARIPOPOL & STORSKY STEEL WORKS(Letter for Record) Date of Approval of plan 9/4/29 Number and Description or Type  
of Boilers ONE YARROW TYPE BOILER Working Pressure 5<sup>kg</sup>/cm<sup>2</sup> Tested by Hydraulic Pressure to 10<sup>kg</sup>/cm<sup>2</sup> Date of Test 18/10/29No. of Certificate 1036 Can each boiler be worked separately ☒ Total Heating Surface of Boilers 43.2 sq. METRESIs forced draught fitted YES Area of fire grate (coal) in each Boiler ☒ Total grate area of boilers in vessel includingMain and Auxiliary MOTOR VESSEL No. and type of burners (oil) in each boiler WITH STEAM & AIR CONNECTION 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 ADJUSTEDAre they fitted with easing gear YES In case of donkey boilers state whether steam from main boilers can enter the donkey boiler BOTH DONKEY  
BOILERS ARE CONNECTED  
TOGETHER  
Smallest distance between boilers AND UNDER SIDE OF DECK 13 1/2" Height of Boiler 2000 mm Width and Length 2370 x 2650 mmSteam Drums:—Number in each boiler ONE Inside diameter 600 mm Material of plates STEEL Thickness TOP 10 mm  
BOTTOM 19 mmRange of Tensile Strength 44/50 kg/mm<sup>2</sup> Are drum shell plates welded or flanged NO Description of riveting:—Cir. seams SINGLE long. seams DOUBLE BUTT Diameter of rivet holes in long. seams 16.5 mm Pitch of Rivets 46.5 mmLap of plate or width of butt straps 85.100 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 pressureby rules ☒ Steam Drum Heads or Ends:—Material STEEL Thickness 12 mm Radius or how stayed 600 mmSize of Manhole or Handhole 400 x 300 mm Water Drums:—Number in each boiler TWO Inside Diameter 450 mmMaterial of plates STEEL Thickness 10 mm Range of tensile strength 44/50 kg/mm<sup>2</sup> Are drum shell plates weldedor flanged NO Description of riveting:—Cir. seams SINGLE long. seams SINGLE LAP Diameter of Rivet Holes inlong. seams 19.5 mm Pitch of rivets 50.7 mm 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 62.90 mmPercentage strength of drum shell in way of tubes 42% Water Drum Heads or Ends:—Material STEEL Thickness 10 mmRadius or how stayed 600 mm RADIUS 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 Int.Thickness 3 mm Number 267 TOTAL Steam Dome or Collector:—Description of Joint to Shell NONEPercentage strength of Joint ☒ Diameter ☒ Thickness of shell plates ☒ Material ☒Description of longitudinal joint ☒ Diameter of Rivet Holes ☒ Pitch of Rivets ☒ Working Pressure of shellby Rules ☒ Crown or End Plates:—Material ☒ Thickness ☒ How stayed ☒SUPERHEATER. Type NONE 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. Speransky 19.11.29 Manufacturer.Dates of Survey } During progress of } 13/5/29 16/5/29 23/5 4/6/29 8/6/29 9/7/29 30/7/29 Approved plan of boiler forwarded herewith No. 9/4/29.  
while } work in shops - - }  
building } During erection on } 18/10/29 19/11/29.  
board vessel - - }Total No. of visits 10GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructedunder 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 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. Crivick

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 17 DEC 1929Assigned W. T. O. P. 9116

(See also F.H. up attached)

FRI. 8 JAN 1930

FRI. 14 FEB 1930

TUE. 25 MAR 1930

FRI. 11 JUL 1930

Lloyd's Register  
Foundation

010766-010776-0140