

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-8 OCT. 1927

Date of writing Report 28th Sept. 1927 When handed in at Local Office

19 Port of LENINGRAD

No. in Survey held at LENINGRAD

Date, First Survey 24th Feb 1926 Last Survey 25th Sept. 1927

Reg. Book.

(Number of Visits 98)

on the S/S "MICHAEL TOMSKY"

Tons { Gross
NetBuilt at LENINGRAD By whom built BALTIC SHIPBUILDING & ENG^s WORKS Yard No. 167 When built 1927

Engines made at LENINGRAD By whom made Do. Do. Engine No. 167 when made 1927

Boilers made at LENINGRAD By whom made Do. Do. Boiler No. 167 when made 1927

Registered Horse Power Owners SOVIET MERCANTILE FLEET Port belonging to LENINGRAD

Nom. Horse Power as per Rule 192 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which Vessel is intended TIMBER CARRYING

ENGINES, &c. Description of Engines STEAM INVERTED RECIPROCATING Triple. Revs. per minute 90

Dia. of Cylinders 450x740x1230^{17 1/2, 29 1/4 & 48 3/4} Length of Stroke 900^{35 1/2} No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 243^{1/4} Crank pin dia. 250^{1/4} Crank webs Mid. length breadth 278^{1/4} Thickness parallel to axis shrunk Thickness around eye-hole

Intermediate Shafts, diameter as per Rule 231.4^{1/4} as fitted 235^{1/4} Thrust shaft, diameter at collars as per Rule 243^{1/4} as fitted 250^{1/4}

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 270.4^{1/4} as fitted 285^{1/4} As the screw shaft fitted with a continuous liner No

Bronze Liners, thickness in way of bushes as per Rule 16^{1/4} as fitted 17^{1/4} Thickness between bushes as per Rule Is the after end of the liner made watertight in the propeller boss YES If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner TWO LINERS

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two liners are fitted, is the shaft lapped or protected between the liners PAINTED BETWEEN LINERS Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft NONE Length of Bearing in Stern Bush next to and supporting propeller 1200^{1/4}

Propeller, dia. 3900^{1/4} Pitch 3300^{1/4} No. of Blades 4 Material CAST STEEL whether Moveable SOLID Total Developed Surface 5.06^{1/4} sq. ft.

Feed Pumps worked from the Main Engines, No. TWO Diameter 78^{1/4} Stroke 435^{1/4} Can one be overhauled while the other is at work YES

Bilge Pumps worked from the Main Engines, No. TWO Diameter 78^{1/4} Stroke 435^{1/4} Can one be overhauled while the other is at work YES

Feed Pumps { No. and size ONE DUPLEX 7 1/2 x 5 x 6 Pumps connected to the { No. and size TWO; Bilge 9 x 7 x 8, BALLAST 10 x 8 1/2 x 18 How driven STEAM CYLINDERS Main Bilge Line How driven STEAM CYLINDERS

Ballast Pumps, No. and size ONE, 100TON, 10 x 8 1/2 x 18 Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room ENGINE ROOM 4 @ 100^{1/4}, BOILER ROOM 1 @ 100^{1/4} TUNNEL WELL 100^{1/4} DIA.

In Holds, &c. AFT HOLD 4 @ 100^{1/4}, FOR^s HOLD 2 @ 100^{1/4} DIA.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 170^{1/4} DIA. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 @ 100^{1/4} DIA.

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes YES

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed NEAR the level of the working floor, with straight tail pipes to the bilges YES

Are all Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks BOTH

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates EXTENDED Are the Overboard Discharges above or below the deep water line ABOVE

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel YES Are the Blow Off Cocks fitted with a spigot and brass covering plate YES

What Pipes are carried through the bunkers SANITARY, AIR PIPES & SCUPPERS How are they protected STEEL CASINGS

What pipes pass through the deep tanks NONE Have they been tested as per Rule

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another YES Is the Shaft Tunnel watertight YES Is it fitted with a watertight door YES worked from MAIN DECK

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 258^{1/4} Sq. Mts. 185^{1/4} Is Forced Draft fitted YES No. and Description of Boilers TWO MARINE RETURN TUBE Working Pressure 13^{1/4} CM²

IS A REPORT ON MAIN BOILERS NOW FORWARDED? YES

IS A DONKEY BOILER FITTED? NONE If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 3/6/25 Main Boilers 3/6/25 Auxiliary Boilers Donkey Boilers

(If not state date of approval)

Superheaters 7/5/26 General Pumping Arrangements 17/6/26 Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—

2 each, Connecting rod top end bolts, bottom end bolts, main bearing bolts.

1 set each, Coupling Bolts for crank shaft and propeller shaft.

1 set each, Feed pump valves, Bilge pump valves, Piston springs.

2 quantity of assorted bolts and nuts and iron of various sizes.

1 Crank Shaft, 1 Propeller, 1 pair of Connecting rod Brasses, 1 set of link brasses.

1 Eccentric strap complete suitable for H.P. & L.P. valves, 1 Eccentric strap complete for I.P. Valve.

H.P. I.P. & L.P. Valve spindles, 1 set of Boiler check valves, 2 Dog Boiler tubes.

3 Dog each, Tubes for Main and Auxiliary Condensers

1 set of springs for Boiler safety valves and cylinder escape valves.

Items underlined will be supplied on the vessel's return to Leningrad.

The foregoing is a correct description,

B. Toffyev



009904-009911-0110

Lloyd's Register Foundation

1926. 24/2, 1/3, 6/3, 13/3, 24/3, 29/3, 1/4, 5/4, 8/4, 12/4, 13/4, 22/4, 24/4, 27/4, 29/4
 During progress of work in shops - - 5/5, 13/5, 17/5, 20/5, 27/5, 3/6, 8/6, 14/6, 17/6, 28/6, 5/7, 13/7, 15/7, 16/7, 20/7, 23/7, 27/7
 Dates of Survey while building During erection on board vessel - - 18/9, 23/9, 25/9, 29/9, 11/10, 13/10, 15/10, 18/10, 21/10, 23/10, 25/10, 5/11, 6/11, 8/11, 11/11, 13/11, 15/11, 18/11, 20/11
 Total No. of visits 98

Dates of Examination of principal parts—Cylinders 22-4-26 to 10-8-26 Slides 15-9-26 Covers 10-8-26
 Pistons 6-15/9/26 Piston Rods 3-27/8/26 Connecting rods 3/8/26
 Crank shaft 24/4/26 Thrust shaft 29/3/26 Intermediate shafts 20/7, 30/7, 10/8, 127/8/26
 Tube shaft ✓ Screw shaft 28/7/27 SEE NOTE BELOW Propeller 26/7/27
 Stern tube 26/7/27 Engine and boiler seatings 30/9/26 Engines holding down bolts 27/11/26
 Completion of pumping arrangements 24/8/27 Boilers fixed 24/9/27 Engines tried under steam 25/9/27
 Main boiler safety valves adjusted 6/7/27 Thickness of adjusting washers P.B. S.V. 21 7/8 S.B. S.V. 19 5/8
 Crank shaft material STEEL Identification Mark N° 027 028 029 Thrust shaft material STEEL Identification Mark 030 H.R.H.
 Intermediate shafts, material STEEL Identification Marks 0025, 0026, 0027 Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material STEEL Identification Mark N° 068 Steam Pipes, material STEEL & COPPER Test pressure 39+26 1/2 Date of Test 27/5/27
 Is an installation fitted for burning oil fuel No ✓ Is the flash point of the oil to be used over 150° F. ✓
 Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓
 Is this machinery duplicate of a previous case YES ✓ If so, state name of vessel "S. GREGORY ZINOVIEFF"

General Remarks (State quality of workmanship, opinions as to class, &c.)
 This machinery has been constructed under special survey in accordance with the rules and approved plans. The materials and workmanship are sound and good, the engine has been fitted on board the vessel in an efficient manner, examined under steam and everything found satisfactory, and is in our opinion eligible to be classed with record of L.M.C.9-27. Subject to the propeller shaft (two times) being drawn for examination before the end of SEPTEMBER 1928. See London Letter E 23/6/27. Copy of Russian Registry Certificate for examination of propeller shaft attached. The machinery requirements for ice navigation have been carried out.

It is submitted that this vessel is eligible for THE RECORD. + LMC.9. 27. F.D.
 Subject to the screw shaft being examined before the end September 1928.

For H.R. Howells & Self.
 A.M. Crivick.
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £	:	:	When applied for,
Special ... £	:	:	19
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19

Committee's Minute
 Assigned Thine 9.27 subject F.D.