

REPORT ON ELECTRIC PROPELLING MACHINERY

No. 4154 Electr. Prop.

of writing Report 9.3. 1955 When handed in at Local Office 19 Port of Helsingfors
 o. in Survey held at Helsingfors Date, First Survey 29.6. 1953 Last Survey 12.1. 1955
 Book. No. of Visits 58
 471 ~~XXXXXX~~ Screw vessel Kapitän Belousov Gross 3710
~~XXXXXX~~ Quadruple Tons Net 1050
 at Helsingfors Finland By whom built Wärtsilä-koncernen A/B
 Sandvikens Skeppsdocka Yard No. 353 When built 1954
 Electrical Machines made at Helsingfors Finland By whom made Strömberg Generator Nos. 22, 45, 46
 Motor Nos. 36, 38, 39, 37 When made 1953/54
 Eng. /ft Horse Power at Full Power 10500 (See overleaf) Total Capacity of Generators 8220 kilowatts
 Machinery Numeral as per Rule 2400 Owners U.S.S.R. Port belonging to
 de for which Vessel is intended Icebreaking

VS.— Have plans of the Machines, Control Gear, Cables and Circuits been submitted and approved yes

IM ENGINES.— Type of Engine — No. of Engines — R.P.M. — Is a Governor fitted — Is the speed
 variation as per Rule when load is thrown off — Is an Emergency Governor fitted — Is it arranged for hand tripping — Does it trip the throttle
 If exhaust steam is permitted, is an automatic shut-off fitted — Is provision made for bled steam — and is a non-return or positive
 off valve fitted — Lubricating Oil.— State means provided for emergency supply — Mechanical Balance.— Are the Engines and Generators balanced so as not
 to emergency supply sufficient to maintain lubrication as per Rule — use appreciable vibration.

ENGINES.— Type of Engines K 58 M Diesel R.P.M. 225/400 Is a Governor fitted yes Is the speed variation as
 Rule when load is thrown off yes Is an Emergency Governor fitted yes Does it operate as per Rule yes

GENERATORS.— Direct or Alternating Current Direct No. of Generators 6 If A.C. state frequency at full load —
 per Generator 1370 Volts per Generator 400 Amps. per Generator 3430 Have certificates of works tests been
 supplied yes and the results found as per Rule yes Ventilation.— State how arranged (open or closed system) open

Are ventilating arrangements satisfactory yes Heating when Idle.— What provision is made. Electrical
 heating Resistance Facilities for Inspection and Repair.— Are these as per Rule. yes

year-down gauges supplied yes Bilges.— Are the arrangements to prevent accumulation of bilge-water under the machines satisfactory yes

RS.— S.H.P. per Motor at full power 3500 No. of Motors 4 Single or double unit double Volts per Motor 2 x 400
 per Motor 3430 Have certificates of works tests been supplied yes and the results found as per Rule yes A.C. Motors.— Is provision made for
 changing the slip rings — Do the Motors remain in synchronism under all normal conditions of running — D.C. Motors.— If the system permits
 speeding at light loads are overspeed protection devices fitted —

ATION.— Is power for excitation taken from the ship's Auxiliary Generators yes If so, state voltage 220 and excitation amperes at full
 900 kilowatts for excitation 200 State excitation arrangements for Propulsion Generators. Excitation Motor-Generators.

Propelling Motors from auxiliary Bus Bars Is an alternative means of excitation provided no
 certificates of works tests been supplied yes and found as per Rule yes

ROL.— Position of Main Control Panel Operatingroom
 It comply with the requirements regarding position yes, grouping of controls yes, instruments yes, insulating materials (state type
 of screws and nuts yes, labelling yes, spacing and shielding of live parts yes, accessibility yes, position of fuses be yes
 method employed) (The contactors are not used for manoeuvring) provision for manual operation of contactors, etc.

ng of instrument cases yes, provision of renewable tips on switches subject to arcing yes, capability of withstanding
 and inclination yes, operation with high and low voltage yes, rustproofing of parts yes Overload and Short Circuit Protection.— State means
 Neg. compounding of the exiting Generators; thermorelays, electromagnetic main current relays, high speed
 lators.

at load is it set to operate 2 x 3430 A Has it been tripped by hand when running at full power and found satisfactory yes
 uses of an approved type yes; ASEA

Detection.— Is the main circuit provided with means for detecting earths yes Are aural and visual alarms fitted yes Is main power interrupted
 earth fault no If a limiting resistance is in the earth detecting circuit what is the ohmic value 220,000 ohms What earth leakage current is necessary
 rate the device 5 A If a switch is used to disconnect the aural signal does it automatically give visual indication yes Are the excitation circuits
 ed with means for earth detection yes Mechanical Protection.— Are circuits above 250 volts D.C. or 150 volts A.C. to earth protected as per Rule yes

or Deck Control.— Is bridge control provided yes If so, from how many stations 4 can it be operated freely without producing
 ts or loads in excess of the working capacity of the plant yes and without reference to electrical instruments yes Is an emergency control provided
 engine room yes and can the transfer to this control be made quickly in the engine room yes Can the emergency control be rendered mechanically
 ndent of the deck control yes Instruments and Gauges.— State Instruments provided for each Generator V- and A-meters for Field.

each Motor V-, A- and MW for Maincircuit, V, A for Field, speed indicator Is an Insulation Tester provided yes

of Shunt Protection.— Are all shunt field circuits protected as per Rule yes D.C. Systems.— If the Generators are connected in series state means
 ed to prevent reversal of direction of rotation of the Prime Movers. An auxiliary contact disconnects the excitation circuit of
 two generators and the propellermotor if the speed of one generator falls under 100 rpm

Propulsion Generators also used alternatively for other purposes no If so, is provision made for overload protection, voltage adjustment, etc.

