

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

14 OCT 1929

Date of writing Report *5th Oct 1929* When handed in at Local Office *4th Oct 1929* Port of *Nicolaieff U.S.S.R.*

No. in Survey held at *Nicolaieff U.S.S.R.* Date, First Survey *24-4-28* Last Survey *24-9-1929*
Reg. Book.

on the *Motor Vessel "EMBANETT"*

Built at *Nicolaieff* By whom built *Nicolaieff Yard* Yard No. *185* When built *1929*

Owners *Naphta Syndicate U.S.S.R.* Port belonging to *Kovorossiok U.S.S.R.*

Electric Light Installation fitted by *State Electric Trust* Contract No. *✓* When fitted *1929*

System of Distribution

Double Wire.

Pressure of supply for Lighting *110* volts, Heating *✓* volts, Power *110* volts.

Direct or Alternating Current, Lighting *Direct Current.* Power *Direct Current.*

If alternating current system, state frequency of periods per second *✓*

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off *Yes*

Generators, do they comply with the requirements regarding rating *Yes*, are they compound wound *Yes*

are they over compounded 5 per cent. *Yes*, if not compound wound state distance between each generator *✓*

Where more than one generator is fitted are they arranged to run in parallel *Yes*, is an adjustable regulating resistance fitted in series with each shunt field *Yes.*

Are all terminals accessible, clearly marked, and furnished with sockets *Yes*, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched *Yes.* Are the lubricating arrangements of the generators as per Rule *Yes.*

Position of Generators *In Auxillary Engine Room*

is the ventilation in way of the generators satisfactory *Yes*, are they clear of all inflammable material *None*

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators *✓* and *✓*, are the generators protected from mechanical injury and damage from water, steam or oil *Yes.*

are their axes of rotation fore and aft *Yes.*

Earthing, are the bedplates and frames of the generating plant efficiently earthed *Yes* are the prime movers and their respective generators in metallic contact *Yes.*

Main Switch Boards, where placed *In special room off Aux engine room with appendices extended into Aux. Eng. Room.*

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard *Same Compartment.*

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes *Yes.*

are they protected from mechanical injury and damage from water, steam or oil *Yes.*, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards. *✓* and *✓*

are they constructed wholly of durable, non-ignitable non-absorbent materials *Yes.*, is all insulation of high dielectric strength and of permanently high insulation resistance *Yes.*

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micamite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework *Micanite used on fittings.*

and is the frame effectively earthed *Yes.* Are the fittings as per Rule regarding:— spacing or shielding of live parts

Yes., accessibility of all parts *Yes*, absence of fuses on back of board *None*, proportion of omnibus bars *Yes.*

individual fuses to voltmeter, pilot or earth lamp *Yes*, connections of switches *Yes.*

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches *Each of the 2-80 KW. generators and the 38 KW generator has 2 single pole fuses & 2 single pole circuit breakers with overload & reverse trips. Both the 80 KW. sets are connected to the main pair of bars in parallel & the 38 KW. set to another pair of bus bars for connecting in parallel and generator has 2 single pole fuses and double pole circuit breaker & double pole switch.*

Instruments on main switchboard *12.* ammeters *2.* voltmeters *✓* synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system *Ammeter*

for pressure 115 Volts.

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules *Yes.*

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule *Yes.*



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Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets

Yes

Cable Runs, are the cables sized as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage yes

If cables are run in wood casings, are the casings and caps secured by screws ☒, are the cap screws of brass ☒, are the cables run in separate grooves ☒. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII *yes.*

Joints in Cables, state if any, and how made, insulated, and protected *Power Cables - none.*
Lighting Cables - joint Boxes.

Bushes in Beams and Non-watertight Partitions, *when unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently*
bushed *Yes.* *state the material of which the bushes are made* *Lead.*

....., are their connections made as per Rule ✓

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven *Emergency dynamo of 4 Kw located in compartment on bridge deck and driven by a oil engine which is*

Navigation Lamps, are these separately wired Yes, controlled by separate switch and separate fuses Yes, are the fuses double pole Yes.

Secondary Batteries, are they constructed and filled as per Rule None except for Radio

are any fillings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *Fillings*
sealed with protective netting.

where are the controlling switches situated. Outside of these spaces in places convenient for handling.

Are Lamps, other than searchlight lamps, No. of None, are their live parts insulated from the frame or case ✓, are their fillings as per Rule ✓

are the brushes, brush holders, terminals and lubricating arrangements as per Rule 10, and the motor is placed in such a position that inflammable gases cannot accumulate and clear of all inflammable material. Yes.

_____, if not of this type, state distance of the combustible material horizontally or vertically above the motors _____ and _____

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule..... None

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office.....

[illegible]

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Am. Area.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP ^{F.O.R.D.} ...	1	240	61	32	300 ✓	24 mbs		Lead Covered
	^{large} MAIN BILGE LINE PUMPS ...	2	625	91	47.5	635 ✓	135		
	AUX. " " GENERAL SERVICE PUMPS ...	2	125	34	28.5	200 ✓	180		
	^{large} EMERGENCY BILGE PUMP ...	1	2.5	4	14	65 ✓	30		
	BALLAST AND SANITARY PUMP ... A.P.T.								
	^{AFT BILGE} CIRC. SEA WATER PUMPS ...	1	16	4	12.5	35 ✓	13		
	CIRC. FRESH WATER PUMPS	1	25	4	14	69 ✓	25		
	AIR COMPRESSOR ...								
	FRESH WATER PUMP ...	1	25	4	12	69 ✓	25		
	ENGINE TURNING GEAR	2	65 125	19 14	15.5 14	160 80	60/20		
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS ...	1	50	19	14.5	135 ✓	80		
	OIL FUEL TRANSFER PUMPS	6	125/100/15	7/8	12.5, 23.5, 14, 6.5	350, 280, 8	130/15/40		
	WINDLASS ...	1	400	91	39.5	450 ✓	10		
	WINCHES, FORWARD ...	2	95	19	22	120 ✓	150		
	WINCHES, AFT ...	1	400	91	39.5	285 ✓	12		
	STEERING GEAR—								
	(a) MOTOR GENERATOR...	1	185/400	34/91	28.5/39.5	285 ✓	10		
	(b) MAIN MOTOR ...	1	400	91	39.5	285 ✓	10		
	WORKSHOP MOTOR	1	25	4	14	140 ✓	20		
	VENTILATING FANS ...	4	10/35	4/19	12.5/15.5	23/44 ✓	30		
	^{separator} Separator	1	10	4	7.5	12.5 ✓	60		
	^{compressor} Compressor	1	25	4	14	✓	8		
	^{miscs.} Miscs.	1	6	4	9	✓	6		
	^{pumps} Pumps	1	6	4	9	✓	6		
	^{ventilators} Ventilators	1	4	4	8.5	✓	8		
	^{exhausting plant} Exhausting Plant	1	95	19	22	200	30		
	Windlass Motor								
	Generator	1	185/400	34/91	28.5/39.5	392-450	10/10		

Cables made according to the Rules of the Russian Naval Department.

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All Conductors are of annealed copper conforming to British Standard Specification No. 7.
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
The foregoing is a correct description.

J. M. Kobaneh

Electrical Engineers.

Date *19/10/29.*

COMPASSES.

Distance between electric generators or motors and standard compass *37' 6"*

Distance between electric generators or motors and steering compass *34' —*

The nearest cables to the compasses are as follows:—

A cable carrying *4* Amperes *10* feet from standard compass *6* feet from steering compass.

A cable carrying *0.5* Amperes *Fixed to body of* and *—* feet from standard compass *—* feet from steering compass.

A cable carrying *—* Amperes *—* feet from standard compass *—* feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power *Under normal working conditions*

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted *No*

The maximum deviation due to electric currents was found to be *-1.25* degrees on *S. E. and S. W.* course in the case of the standard compass, and *-2 + 2* degrees on *S. W. and N. W.* course in the case of the steering compass.

Alenupf

Builder's Signature.

Date *19/10/29.*

Is this installation a duplicate of a previous case *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *—*)

This installation has been fitted on board under Special Survey, tested under working conditions and found satisfactory.

The Workmanship was found to be good and sound.

Constant attendance on yard during the installing of the plant

*It is submitted that
this vessel is eligible for
THE RECORD.*

Elec. Light

22/10/29.

J. I.

Total Capacity of Generators *202* Kilowatts.

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

J. I. Barr. & J. C. Cochrane
Surveyors to Lloyd's Register of Shipping.

FRI. 25 OCT 1929

Committee's Minute

Assigned

Elec Light



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