

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

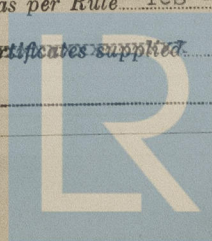
175 JUN 1959

Date of writing Report 11/6 19 59 When handed in at Local Office 19 Port of Stockholm  
 No. in Survey held at Gävle Date, First Survey 13.1.59. Last Survey 28.4 19 59.  
 Reg. Book. (No. of Visits 14)  
 92246 on the Twin Screw Motorship "ALDAN" Tons Gross 1500 Net -  
 Built at Gävle By whom built A/B Gävle Varv Yard No. 100 When built 1959  
 Owners U.S.S.R. Port belonging to Leningrad  
 Installation fitted by A/B Elektroarmatur, Gävle When fitted 1959  
 Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. No Radar Yes

Plans, have they been submitted and approved Yes System of Distribution 3-phase Voltage of Lighting 220  
 Heating 220 Power 380 D.C. or A.C., Lighting AC Power AC If A.C. state frequency 50  
 Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes ~~Are turbine emergency governors fitted with a trip switch.~~ Generators are they compound wound, and level compounded under working conditions  
 Are the generators arranged to run in parallel Yes ~~Is the compound winding connected to the negative or positive pole~~  
 Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing Yes Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule Yes Position of Generators Main engine room: One on port and one on starboard side aft. Aux. engine room: Port, centre and starboard.  
 Is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil Yes Switchboards, where are main switchboards placed Main engine room: On a platform port side aft. Aux. engine room: On a platform at forward end.  
 Are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil Yes, what insulation is used for the panels Dead front construction ~~if of synthetic insulating material is it an Approved Type~~ if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Is the construction as per Rule, including locking of screws and nuts. Yes Description of Main Switchgear for each generator and arrangement of equaliser switches Triple pole linked circuit breaker with overcurrent release (in 2 phases), Reverse power release (in one phase) and No Volt release (between 2 phases).  
 and the switch and fuse gear (or circuit breakers) for each outgoing circuit Triple pole linked circuit breaker with over-current trip in each phase.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Main E.R.6 Instruments on main switchboard Aux. E.R.13  
 M.E.R.3 M.E.R.2 + 1 frequency meter on each switchboard  
 ammeters A, E.R.9 voltmeters A, E.R.2 synchronising devices. / ~~For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection.~~ Earth Testing, state means provided Earth  
 indicating lamps Preference Tripping, state if provided None fitted, and tested  
 Switches, Circuit Breakers and Fuses, are they as per Rule Yes are the fuses an Approved Type Yes  
 make of fuses ASEA are all fuses labelled Yes If circuit breakers are provided for the generators, at what power overload do they operate 110% of the amperage and 10 seconds, and at what current do the reverse current protective devices operate 15% Cables, are they insulated and protected as per Rule Yes  
~~if otherwise than as per Rule are they of an Approved Type~~ state maximum fall of pressure between bus bars and any point under maximum load less than 6% volts Are all paper insulated and varnished cambric insulated cables sealed at the ends None fitted  
 Are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage Yes are any cables laid under machines or floorplates Yes, if so, are they adequately protected Yes State type of cables (if in conduit this should also be stated) in machinery spaces VIRIC + A, galleys VIRIC + A and laundries VIRIC + A State how the cables are supported or protected  
 Machinery spaces: VIRICA clipped to structure or cable trays.  
 Accommodations: VIRIC clipped to structure or run in conduit.

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes where unarmoured cables pass through beams, etc., are the holes effectively bushed Yes Refrigerated chambers, are the cables and fittings as per Rule Yes - domestic only  
 Have refrigeration fan motors been constructed under survey and test certificates supplied  
 Are the motors accessible for maintenance at all times



© 2021

Lloyd's Register Foundation

011725-011736-0257 1/2



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes. Emergency Supply, state position

Main engine room: 2 lamps (1 group) connected before circuit breakers & 4 lamps (1 group) from battery.

Aux. engine room: 3 lamps (1 group) & 2 (1 group) " " "

Navigation Lamps, are they separately wired. Yes controlled by separate double pole switches and fuses. Yes Are the switches and fuses in a position accessible only to the officers on watch. Yes, is an automatic indicator fitted. Yes Is an alternative supply provided. Yes

Secondary Batteries, are they constructed, fitted and adequately ventilated as per Rule. Yes, state battery capacity in ampere hours. " 160 Ah " emerg. light, Where required to do so does it comply with 1948 International Convention

Lighting, is fluorescent lighting fitted. No If so, state nominal lamp voltage and compartments where lamps are fitted

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. Yes

Searchlights, No. of 3, whether fixed or portable. Fixed, are they of the carbon arc or of the filament type. Filament

Heating and Cooking, is the general construction as per Rule. Yes, are the frames effectually earthed. Yes, are heaters in the accommodation of the convection type. Yes Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil. Yes

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment. Yes Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. None fitted

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule. Yes

Lightning Conductors, where required are they fitted as per Rule. None fitted

Ships carrying Oil having a Flash Point of less than 160°F. Have all the special requirements of the Rules for such ships been complied with. Yes, are all fuses of an Approved Cartridge Type, make of fuse. Are the fittings for pump rooms, two deck spaces, etc. in accordance with the special requirements for such ships. Yes Are all cables lead covered as per Rule

R.S.D., if fitted state maker. Atlas Location of transmitter and receiver. In No. 2 deep tank

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations. Yes

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. Yes

## PARTICULARS OF GENERATING PLANT

[illegible]

## GENERATOR CABLES.

GENERATOR CABLES.									
DESCRIPTION.	No. of	CONDUCTORS.			MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) in ft.	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area Sq. mm.	No. of Strands.	In the Ground.	Rule.			
MAIN GENERATOR	2	4	3 x 70	144	251	8 & 26	VIR	LC + A	
EQUALISER	3	200	3 x 95	289	315	8.10 & 12	"	"	

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

### DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.).

[illegible]

## MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Starting air compressors	2	19	1	16	27.4	33	12&28	VIR
Standby lub. oil pumps	2	10.5	1	6	15.2	21	26&24	"
Main cooling water pumps	3	36	1	50	50.5	69	40, 44&40	"
Aux. cooling water pumps	1	14	1	10	22	27	24	"
Ballast pump	1	15	1	16	22	33	12	"
Bilge pump	1	9.5	1	6	13.8	21	16	"
Fire pump	1	15	1	16	22	33	20	"
O.F. transfer pump	1	16	1	16	23	35	26	"
" " "	1	4	1	4	5.8	26	16	"
Stand by pumps for KAMEWA	2	4.5	1	4	6.5	16	34&28	"
Oil purifiers	3	3.5	1	2.5	5.1	13	12, 16&20	"
DB feed water pump	1	3.2	1	2.5	5.3	13	70	"
Turning gears	2	4.5	1	4	6.5	16	10&16	"
Eng. room fans	2	8.5	1	6	12.5	21	10&14	"
Steering gear	1	15	1	10	22	27	54&100	"
Windlass forward	1	26	1	35	37.5	55	60	"
" aft	1	16	1	16	23	33	100	"
Towing winch	1	45	1	35	60	55	70	"
Aux. cool. water pump	1	5.5	1	4	7.3	16	12	"



The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

AB Elektro-Armatur

*H. S. M. M. M.*

Electrical Contractors.

Date *29-5-1959*

#### COMPASSES.

Have the compasses been adjusted under working conditions Yes

*Aktlebolaget Gävle Varv*

Builder's Signature.

Date *5/6-59*

Have the foregoing descriptions and schedules been verified and found correct Yes

Is this installation a duplicate of a previous case Yes If so, state name of vessel "PAMIR"

Plans. Are approved plans forwarded herewith No If not, state date of approval 2.5.58.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith Yes

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

The electrical installation of this vessel has been installed in accordance with the Rules and approved plans, and tested under working condition to my satisfaction.

The workmanship and materials used are good.

Total Capacity of Generators *TAA* 800 KVA Kilowatts. (P.F. = 0.8).

The amount of Fee ... *Fr. 2.220:-* When applied for, *11/6 19 59.*

Travelling Expenses (if any) £ : : When received, *19.*

*J. Carlsson*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRIDAY 24 JUL 1959*

Assigned *See Rpt. 1.*