

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

11 NOV 1947

Date of writing Report. 3rd Nov. 47 When handed in at Local Office..... 19..... Port of Amsterdam

No. in Survey held at Amsterdam Date, First Survey 22 Oct 47 Last Survey 30th Oct 1947
Reg. Book. (Number of Visits..... 3.....)

31986 on the SS "Amstel diep" ex. (Robert Kuin) Tons { Gross 7229.49
Net 4429.65

Built at Portland Oregon By whom built Oregon Shipbuilding Corp. Yard No. 2011 When built 1943

Owners Royal Netherlands Government Port belonging to The Hague

Electrical Installation fitted by Several Electrical Contractors Contract No. - When fitted 1943

Is vessel fitted for carrying Petroleum in bulk no Is vessel equipped with D.F. yes E.S.D. yes Gy.C. yes Sub.Sig. -

Have plans been submitted and approved - System of Distribution Two-wire-system Voltage of supply for Lighting 120

Heating - Power 120 Direct or Alternating Current, Lighting DC Power DC If Alternating Current state periodicity - Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off yes Are turbine emergency governors fitted with a

trip switch as per Rule - Generators, are they compound wound yes, are they level compounded under working conditions yes,

if not compound wound state distance between generators - and from switchboard - Where more than one generator is fitted are they

arranged to run in parallel yes, are shunt field regulators provided yes Is the compound winding connected to the negative or positive pole

negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing no Have certificates of

test for machines under 100 kw. been supplied no and the results found as per rule yes Are the lubricating arrangements and the construction

of the generators as per rule yes Position of Generators first grating level stairs after bulkhead in

engine room, is the ventilation in way of generators satisfactory yes are they clear of inflammable material yes, if situated

near unprotected combustible material state distance from same horizontally - and vertically -, are the generators protected from mechanical

injury and damage from water, steam and oil yes, are the bedplates and frames earthed yes and the prime movers and generators in metallic

contact yes Switchboards, where are main switchboards placed in engine room on generator floor adjacent

to generators are they in accessible positions, free from inflammable gases and acid fumes yes, are they protected from mechanical injury and damage from water, steam

and oil yes, if situated near unprotected combustible material state distance from same horizontally - and vertically -, what insulation

material is used for the panels ebony asbestos, if of synthetic insulating material is it an Approved Type yes, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule - Is the frame effectually earthed yes

Is the construction as per Rule yes, including accessibility of parts yes, absence of fuses on the back of the board instrument fuses only at back of board, individual fuses

to pilot and earth lamps, voltmeters, etc. yes locking of screws and nuts yes, labelling of apparatus and fuses yes, fuses on the "dead"

side of switches yes Description of Main Switchgear for each generator and arrangement of equaliser switches 175 Amp. double

pole circuit-breakers with overload and reverse-current trips and a three

pole linked knife switch 200 Amp. / one knife used for equaliser.

and for each outgoing circuit double pole linked knife switches and fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 3

ammeters 3 voltmeters - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection yes Earth Testing, state means provided earth lamps coupled to earth through d.p. switch

Switches, Circuit Breakers and Fuses, are they as per Rule standard are the fuses an approved type standard are all fuses labelled as

per Rule yes If circuit breakers are provided for the generators, at what overload current did they open when tested 50% are the reversed current

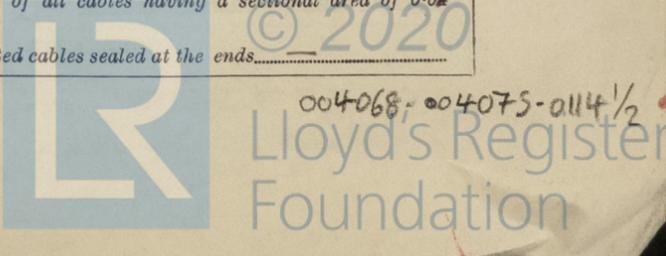
protection devices connected on the pole opposite to the equaliser connection yes, have they been tested under working conditions, and at what current

did they operate 60% Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules 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%, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets yes Are paper insulated and varnished cambric insulated cables sealed at the ends -



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with insulating compound — or waterproof insulating tape —. 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 cables laid under machines or floorplates no, if so, are they adequately protected —. Are cables in machinery spaces, galleys, laundries, etc., lead covered yes or run in conduit —. State how the cables are supported and protected main cables clipped to steel ladders, fixed with galvanized clips, protected by flat bars in cargo spaces, clipped to bulkheads in accommodation

Are all lead sheaths, armouring and conduits effectually bonded and earthed yes. Refrigerated chambers, are the cables and fittings as per Rule —. 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 effectually bushed yes and with what material lead. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule yes. Emergency Supply, state position none and method of control —

Navigation Lamps, are they separately wired yes controlled by separate double pole switches yes 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. Secondary Batteries, are they constructed and fitted as per Rule yes, are they adequately ventilated yes what is the battery capacity in ampere hours 2 batteries 24V. for Bell-systems

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present no, if so, how are they protected —

and where are the controlling switches fitted —, are all fittings suitably ventilated yes, are all fittings and accessories constructed and installed as per Rule yes. Searchlight Lamps, No. of connecting for one, whether fixed or portable portable, are their fittings as per Rule yes. Heating and Cooking, is the general construction as per Rule —

are the frames effectually earthed —, are heaters in the accommodation of the convection type —. Motors, are all motors constructed and installed as per Rule — and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil yes, if situated near unprotected combustible material state minimum distance from same horizontally — and vertically —. Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment —

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing none. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule no. Control Gear and Resistances, are they constructed and fitted as per Rule yes. Lightning Conductors, where required are they fitted as per Rule steel mast. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with —, are all fuses of the cartridge type —

are they of an approved type —. Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships —. Are the cables lead covered as per Rule —. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule yes, are they 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.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	3	20	120	167	400	steam-engine	—	
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	20	1	37.082	167	233	40	Rubber	L.C.B.W.A.
" EQUALISER		1	7.077	—	70	20	"	"
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
light panel "1" engine room	1	7.097	50	74	30	Rubber	L.C.B.W.A.
" " "2" cargo floor stores	1	7.097	30	74	420	"	"
" " "3" midship accom	1	19.074	50	100	144	"	"
" " "4" midship accom	1	19.074	50	100	110	"	"
" " "5" cargo floor aft	1	7.097	30	74	240	"	"
" " "6" aft deck stores	1	7.097	35	74	390	"	"
" " "7" forward accommodation	1	19.072	60	100	180	"	"
" " "8" navigation instrument	1	7.061	15	41	230	"	"
" " "9" bridge deck accom	1	19.074	60	100	160	"	"
feeder searchlight "10"	1	11.038	10	23	320	"	"

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
WIRELESS	1	7.061	35	41	230	Rubber L.C.B.W.A.
NAVIGATION LIGHTS		7.024	0.2	11.5	400	"
LIGHTING AND HEATING		7.024	—	11.5	—	"
feeder degaussing "Pg"	1	37.082	200	233	—	" V.I.R. Bark board
battery charging (24V. batt)	1	7.061	20	41	4	"
salinity indicator for "SB"	1	0.002	1	5	40	" L.C.B.W.A.
feeder gyrocompass	1	7.048	20	31	260	" L.C.B.W.A.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
Refrig. compressor "Pp"	1	75	19.066	57	87	120	Rubber L.C.B.W.A.
feeder pumps from Pan. "Li"	1	34	7.024	6.3	11.5	48	"
Ward. W. pump from Pan. "Li"	1	34	7.024	6.3	11.5	90	"

* American Institute of Electrical Engineers, current rating for two and three conductor cables for rubber insulation.

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.

..... Electrical Engineers.

Date.....

COMPASSES.

Minimum distance between electric generators or motors and standard compass.....

Minimum distance between electric generators or motors and steering compass.....

The nearest cables to the compasses are as follows:—

A cable carrying 0.3 Ampères lead into feet from standard compass lead into feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power yes

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted yes

The maximum deviation due to electric currents was found to be nil degrees on any course in the case of the standard compass, and nil degrees on any course in the case of the steering compass.

..... Builder's Signature.

Date.....

Is this installation a duplicate of a previous case..... If so, state name of vessel

Plans. Are approved plans forwarded herewith..... If not, state date of approval.....

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith no

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.).....

classing. The electrical equipment has been fitted to the standard and under supervision of the American Bureau of Shipping. The plans available have been examined and found to generally in accordance with the Society's Rules. The whole has been examined and found as far as could be ascertained in a satisfactory condition. The quality of workmanship was found good. The three generator armatures have been cleaned and minor repairs carried out at the port to lift the insulation resistance. Installed a change over switch for navigation panel with auxiliary feeder from panel 19.

The equipment tried under working conditions and was megger tested with satisfactory results. In my opinion this installation merits the approval of the committee

Notes

21/11/47

Total Capacity of Generators 60 Kilowatts.

The amount of Fee ... £ 212 : When applied for, 10.11.1947

Travelling Expenses (if any) £ 0.50 : When received,19.....

W. Keen
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRL 19 DEC 1947

Assigned.....

501.4.38.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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