

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 7 JUL 1947

Received at London Office.....

Date of writing Report.....19..... When handed in at Local Office 30.6.1947 Port of Trieste

No. in Survey held at Monfalcone Date, First Survey 3.3 Last Survey 11.6.1947
Reg. Book. (Number of Visits 9)

89500 on the M/S VIGAN Tons {Gross 784 Net 399

Built at Monfalcone By whom built Cant. Riva dell'Adriatic Yard No. 1728 When built 1947

Owners Yesteralems Dampskibsselskab Port belonging to Stokmarknes

Electrical Installation fitted by Officina Elettromeccanica CRDA Contract No. 1728 When fitted 1947

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

Have plans been submitted and approved yes System of Distribution two wires Voltage of supply for Lighting 220

Heating Power 220 Direct or Alternating Current, Lighting Power 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 Have certificates of

test for machines under 100 kw. been supplied yes 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 E.R. port & starb

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 E.R. port side

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 porcelain or mica (steel plate) 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 yes 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 two faces, 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 Double pole circuit

breakers wit overload and reverse current trip and interlocked switch for

Equalizer and for each outgoing circuit double pole link switches with fuse to each pole

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

ammeters 4 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 voltmeter & lamps

Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an approved type Diazed Type, 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 time, 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 12% 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 3v, 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

Swk
5/8/47

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 lead covered & steel braided supported by clips

Are all lead sheaths, armouring and conduits effectually bonded and earthed yes. Refrigerated chambers, are the cables and fittings as per Rule none. 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 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

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 _____, are they adequately ventilated _____

what is the battery capacity in ampere hours _____ 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 _____, are all fittings and accessories constructed and installed as per Rule yes. Searchlight Lamps, No. of none, whether fixed or portable _____, are their fittings as per Rule _____ 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 none. Motors, are all motors constructed and installed as per Rule yes 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 yes

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 _____ 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	25 x 3	220	113	700	Diesel Motors	Diesel Oil	
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	25	1	100	113	152	200	Rubber	Lead covered & steel braided
" " EQUALISER		1	53		53	100	"	"
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							
Charge winches distr. box	1	x 85	120	135	99	rubber	Lead covered & steel braided
Engine Power	1	75	85	120	85	"	"
" " " "	1	100	112	152	99	"	"
" " " "	1	100	97	152	119	"	"
Deck	1	4.5	14	24	66	"	"
Deck Lights section board	1	7	26	31	33	"	"

According to Table XIV

LIGHTING AND HEATING, ETC., 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.			
WIRELESS							
NAVIGATION LIGHTS	1	2	0.7	10	99	rubber	Lead covered & steel braided
LIGHTING AND HEATING							
Eng. Lights distr. board	1	4.5	9.3	24	33	"	"
Deck	1	5	5.4	24	262	"	"
" " " "	1	5	10.5	24	99	"	"
" " " "	1	5	10	24	99	"	"
Fuel Oil Heater	1	15	45	46	33	"	"
Lubr. Oil	1	15	45	46	79	"	"
Galley O.F. heater	1	1	4	5	33	"	"
" " " "	1	1	2	5	33	"	"
Accommodation O.F. heater	1	1	2	5	20	"	"
" " " "	1	2	6	10	66	"	"

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.
			No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Bilge Pump	1	12.5	1	20	46	53	39	rubber	Lead cov. & steel braided
M.E. Circ. Pump	1	9	1	15	36	46	59	"	"
Lubr. Oil Pump	1	7.5	1	15	30	46	53	"	"
Bilge & Ballast Pump	1	7	1	7	29	31	53	"	"
O.F. Transfer Pump	1	4.2	1	5	18	24	33	"	"
Adv. Eng. Cooling Pump	1	2.3	1	3	11	15	99	"	"
O.F. Purifiers	1	4.7	1	2	8	10	33	"	"
Lubr. Oil Purifiers	1	1.7	1	2	8	10	79	"	"
Sanitary Pump	1	1	1	4	5	46		"	"
Water heater	1	4.4	1	1	4	5	16	"	"
O.F. Transfer Pump	1	0.6	1	1	3	5	39	"	"
Frigidaire	1	0.5	1	1	3	5	165	"	"
Galley blower	1	1	1	1	4	5	13	"	"
Windlass	1	22	1	40	84	85	262	"	"
Winch No 1	1	17	1	40	66	85	85	"	"
" No 2	1	17	1	40	66	85	92	"	"
" No 3	1	17	1	40	66	85	157	"	"
" No 4	1	17	1	40	66	85	177	"	"
" No 5	1	17	1	40	66	85	144	"	"
" No 6	1	17	1	40	66	85	165	"	"

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.

CANTIERI RIUNITI DELL'ADRIATICO
 OFFICINE ELETTROMECCANICHE

Electrical Engineers. Date

[Handwritten Signature]

COMPASSES.

Minimum distance between electric generators or motors and standard compass... 40 feet

Minimum distance between electric generators or motors and steering compass... 46 feet

The nearest cables to the compasses are as follows:—

A cable carrying 1 Ampères 10 feet from standard compass 10 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 none degrees on course in the case of the standard compass, and none degrees on course in the case of the steering compass.

Cantieri Navale Monfalcone

Builder's Signature. Date

[Handwritten Signature]

Is this installation a duplicate of a previous case... no If so, state name of vessel

Plans. Are approved plans forwarded herewith... in London If not, state date of approval 12-1-46, 12-1-46

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

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

This electrical equipment has been fitted under special survey in accordance with the Rules and approved plans. The material and workmanship are good. The insulating condition of the installation tested and found in order. The generators, motors, lamps etc. tested in working condition and found satisfactory.

Total Capacity of Generators... 75 Kilowatts.

The amount of Fee ...	<u>£ 56.250</u>	When applied for, 1/7/19 <u>47</u>
Travelling Expenses (if any) £	:	

[Handwritten Signature]
 Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI 15 AUG 1947

Assigned Sr F.E. mchy. opt.

5m. 4.39.—Transfer. (MADE AND PRINTED IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)