

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

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Date of writing Report 31st Oct. 1952 When handed in at Local Office 19 Port of HAMBURGNo. in Survey held at HAMBURG Date, First Survey 23rd Oct. Last Survey 25th Oct. 1952
eg. Book. (No. of Visits three)65258 on the M.V. "KAMERUN" Tons 3911
Gross 2186
Net 1951Built at Flensburg By whom built Flensburger Schiffsb.Ges. Yard No. 533 When built 1951Owners Deutsch-Afrikanische SchiffahrtsGmbH Port belonging to HamburgInstallation fitted by A.E.G. Schiffbau, Hamburg When fitted 1951Is vessel equipped for carrying Petroleum in bulk no Is vessel equipped with D.F. yes E.S.D. yes Gy.C. no Sub.Sig. no Radar noPlans, have they been submitted and approved yes System of Distribution single wire Voltage of Lighting 220Heating yes Power yes D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency -Prime Movers, has the governing been found as per Rule when full load is thrown on and off yes Are turbine emergency governors fitted yes
except 70 KW stand by generatorGenerators, are they compound wound yes and level compounded under working conditions yes
except 70 KW stand by generatorAre the generators arranged to run in parallel yes Is the compound winding connected to the negative or positive pole negativeHave machines 100 kw. and over been inspected by the Surveyors during manufacture and testing no Have certificates of test for machines nounder 100 kw. been supplied and the results found as per Rule no Position of Generators Port fwd. inboard, port fwd.outboard, port aft inboard, port aft outboard and stand by port aft inboardIs the ventilation in way of generators satisfactory yes are they clear of inflammable material and protected from mechanical injury and yesdamage from water, steam and oil yes Switchboards, where are main switchboards placed Engine room port sideat platform level, placed athwartshipsAre they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, yesteam and oil yes, what insulation is used for the panels dead from construction in way of circuit breakers, remaining parts (AEG)material is it an Approved Type - if of semi-insulating material (stone or marble) are all conducting parts insulated therefrom as yesper Rule no Is the construction as per Rule, including locking of screws and nuts yes Description of Main Switchgear For the 3 main generatorsfor each generator and arrangement of equaliser switches single pole circuit breakers with O/C and R/C releasesand preference relay acting shunt trip coil and selected branch circuit breaker. Second pole used for equaliser. For auxiliary and Harbour generator single pole switches with fusesand the switch and fuse gear (or circuit breakers) for each outgoing circuit Single pole linked switch and fuse

in each circuit.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 7ammeters 4 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reverse current yesprotection devices connected on the pole opposite to the equaliser connection yes Earth Testing, state means provided yessingle wire system Preference Tripping, state if provided yes and tested yesswitches, Circuit Breakers and Fuses, are they as per Rule yes are the fuses an Approved Type yesmake of fuses Siemens are all fuses labelled yes If circuit breakers are provided for the generators, at what 25 %overload do they operate 5 % and at what current do the reverse current protective yesdevices operate yes Cables, are they insulated and protected as per Rule yesotherwise than as per Rule are they of an Approved Type - state maximum fall of pressure between bus bars and any point 5under maximum load 5 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends -are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical yesdamage yes are any cables laid under machines or floorplates no if so, are they adequately protected - Statemake of cables (if in conduit this should also be stated) in machinery spaces M.K. galleys M.K.laundries M.K. State how the cables are supported or protected Suitably clipped to cable traysall lead sheaths, armouring and conduits effectually bonded and earthed yes Are all cables passing through decks and watertight yesheads provided with deck tubes or watertight glands yes where unarmoured cables pass through beams, etc., are the holes yesactively bushed yes Refrigerated chambers, are the cables and fittings as per Rule yes (Domestic)are refrigeration fan motors been constructed under survey - and test certificates supplied -are the motors accessible for maintenance at all times -

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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule yes Emergency Supply, state position yes
Secondary Batteries fitted in well ventilated room on Main Deck single

Navigation Lamps, are they separately wired yes controlled by separate double pole switches and fuses yes Are the switches and fuses yes
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 74
ampere hours 74 Where required to do so does it comply with 1948 International Convention yes

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 1, whether fixed or portable portable, 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 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 yes

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule no

Lightning Conductors, where required are they fitted as per Rule yes

Ships carrying Oil having a Flash Point of less than 150° F. Have all the special requirements of the Rules for such ships been complied with yes, are all fuses of an Approved Cartridge Type yes, make of fuse - Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships yes Are all cables lead covered as per Rule yes

E.S.D., if fitted state maker Atlas-Bremen location of transmitter and receiver Frame 63 - 64

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.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kw. per Generator.	Volts.	Amperes.	Revs. per Min.	TYPE.	MAKER.
MAIN	3	Allg. Elektr. Ges.	80	230	350	500	Oil Eng.	M.A.N.
Stand by	1	"	70	230	305	1100	"	Deutz
Harbour	1	Hans Still	7.5	230	33	900	"	M.W.M.
EMERGENCY ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands.	In the Circuit.	Rule.			
MAIN GENERATOR	3	80	2	2 x 70	350	250	15-20	Rubber	M.K. LC & metalbraided MK
" EQUALISER	3	-	1	70	-	-	15-20	"	"
Stand by	1	70	2	2 x 95	305	300	15	"	"
EMERGENCY GENERATOR	1	7.5	1	6	33	29	15	"	"
ROTARY TRANSFORMER: MOTOR									
" GENERATOR									

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

DESCRIPTION.									
No. 1 Heating Bridge & Officers Accom.	1	1 x 35	87	78	50	Rubber	M.K. LC & met		
No. 2 " Passenger Accom. Port	1	1 x 25	78	63	35	"	"		
No. 3 " " " Stbd.	1	1 x 35	80	78	35	"	"		
No. 4 " Crew "	1	1 x 70	155	125	65	"	"		
No. 6 " } Engineer Accom.	1	1 x 35	100	78	25	"	"		
No. 7 " }	1	1 x 25	70	63	25	"	"		
No. 8 " Office & Carpenter	1	1 x 2.5	16	15.5	60	"	"		
No. 5 Winches aft	1	1 x 70	160	125	35	"	"		
No. 8 " fwd. & windlass	1	1 x 95	200	150	60	"	"		
No. 2 Domestic Heating	1	1 x 35	95	78	35	"	"		
No. 3 & 6 "	1	1 x 50	60+45	99	35	"	"		
No. 4 "	1	1 x 4	23	22.5	65	"	"		
MDB 9 Lighting	1	1 x 95	160	150	35	"	"		
No. 5 Fans	1	1 x 6	35	29	35	"	"		
No. 8 "	1	1 x 25	65	63	60	"	"		
No. 7 "	1	1 x 10	36	38	25	"	"		

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

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands.	In the Circuit.	Rule.			
Officers' Quarters							
from MDB 9 to No. 1 Lighting Bridge &	1	1 x 4	22	22.5	50	Rubber	LC & metalbraided MK
" " " "2 & 3 Passenger Lightg.	1	1 x 6	16+15	29	35	"	"
" " " "6 & 7 Engineer Acc. "	1	1 x 6	13+12	29	25	"	"
" " " "4 Aft Crew "	1	1 x 2.5	14	15.5	65	"	"
" " " "5 Deck aft "	1	1 x 2.5	15	15.5	35	"	"
" " " "8 Deck fwd. "	1	1 x 2.5	16	15.5	60	"	"
" " " Navigation board	1	1 x 6	20	29	50	"	"
" " " Position lamp	1	1 x 1.5	2	9.5	50	"	"
" " " Provision Refr. Mch. (DB 10)	1	1 x 4	21	22.5	20	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.									
DESCRIPTION.	No.	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands.	In the Circuit.	Rule.			
Ballast pump	1	22	1	1 x 50	118	99	22	Rubber	LC & metalbraided MK
Bilge "	1	5.5	1	1 x 6	30.5	29	23	"	"
Fire Fighting & Ballast Pump	1	7.4	1	1 x 10	40	38	22	"	"
Cooling Water Pumps	3	22	1	1 x 50	115	99	18+23	"	"
Harbour Cooling Water Pump	1	10	1	1 x 16	53.5	49	20	"	"
Fuel oil Transfer Pump	1	5.9	1	1 x 6	32	29	14	"	"
" " " "	1	1.5	1	1 x 1.5	8.8	9.5	15	"	"
Largoil Discharge Pump	1	16.9	1	1 x 35	89	78	14	"	"
Ab. Oil Pump	1	8	1	1 x 10	43	38	12	"	"
Steering Water Pump for D.Boiler	1	1.3	1	1 x 1.5	7.5	9.5	12	"	"
Steering Engines	1	8.6	1	1 x 10	46	39	80	"	"

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

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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 Contractors. Date

COMPASSES.

Have the compasses been adjusted under working conditions. **yes**

Builder's Signature. Date

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 **" TRANSVAAL " " NIGERIA "**

Plans. Are approved plans forwarded herewith. **yes** If not, state date of approval **31.1.52**

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

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.) **The electrical equipment of this vessel has been installed under Special Survey of the Germanischer Lloyd. Now examined and found in accordance with the approved plans and the Secretary's letters, with the exception that the three main generator main cables have not been increased to accord with the Rule Requirements.**

The workmanship and materials are good. The electrical equipment has been examined and tested under working conditions and found acceptable for a Vessel not Built Under Survey when the three main generator main cables are increased to accord with the Rule Requirements.

Total Capacity of Generators **317.5** Kilowatts.

The amount of Fee ... £

see Rpt. 9

Travelling Expenses (if any) £

When applied for,

19

When received,

19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THU 12 MAR 1953

Assigned