

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

10 NOV 1952

Date of writing Report **31st Oct.** 19 **52** When handed in at Local Office _____ 19 _____ Port of **HAMBURG**

No. in Survey held at **HAMBURG** Date, First Survey **23rd Oct.** Last Survey **25th Oct.** 19 **52**

eg. Book. _____ (No. of Visits **three**)

65258 on the **M.V. "KAMERUN"** Tons ^{Gross} **3911** _{Net} **2186**

Built at **Flensburg** By whom built **Flensburger Schiffsb.Ges.** Yard No. **533** When built **1951**

Owners **Deutsch-Afrikanische SchiffahrtsGmbH** Port belonging to **Hamburg**

Installation fitted by **A.E.G. Schiffbau, Hamburg** When fitted **1951**

Is 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 **no**

Plans, have they been submitted and approved **yes** System of Distribution **single wire** Voltage of Lighting **220**

Heating **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

with a trip switch **-** Generators, are they compound wound **yes** **▲**, and level compounded under working conditions **yes**, **except 70 KW stand by generator**

Are the generators arranged to run in parallel **yes**, **▲** Is the compound winding connected to the negative or positive pole **negative**

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

under 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 inboard

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 **Engine room port side**

at platform level, placed athwartships

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 from construction in way of** **▲** circuit breakers, remaining parts

material is it an Approved Type **-**, if of semi-insulating material (such as **marble**) are all conducting parts insulated therefrom as

per Rule **no** Is the construction as per Rule, including locking of screws and nuts **yes** Description of Main Switchgear

For the 3 main generators **single pole circuit breakers with O/C and R/C releases**

and 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 fuses

Single pole linked switch and fuse

and the switch and fuse gear (or circuit breakers) for each outgoing circuit

in each circuit.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule **yes** Instruments on main switchboard **7**

ammeters **4** voltmeters **-** synchronising devices. For compound machines in parallel are the ammeters and reverse current

protection devices connected on the pole opposite to the equaliser connection **yes** Earth Testing, state means provided

single wire system Preference Tripping, state if provided **yes**, and tested **yes**

switches, Circuit Breakers and Fuses, are they as per Rule **yes**, are the fuses an Approved Type **yes**

make of fuses **Siemens**, are all fuses labelled **yes** If circuit breakers are provided for the generators, at what

percentage do they operate **25 %**, and at what current do the reverse current protective

devices operate **5 %** Cables, are they insulated and protected as per Rule **yes**

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 **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

damage **yes**, are any cables laid under machines or floorplates **no**, if so, are they adequately protected **-** State

make 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 trays**

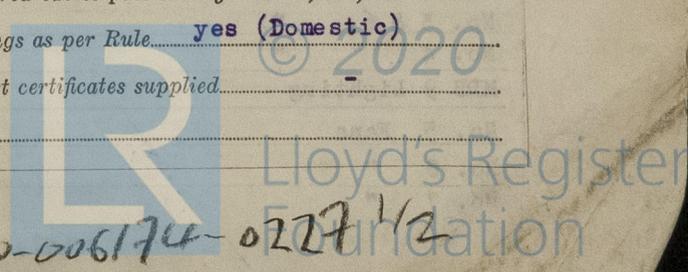
Are all lead sheaths, armouring and conduits effectually bonded and earthed **yes** Are all cables passing through decks and watertight

heads 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)**

Are refrigeration fan motors been constructed under survey **-** and test certificates supplied **-**

Are the motors accessible for maintenance at all times **-**



206160-006174-0227 1/2

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 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 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 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 -

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 -

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 -, are all fuses of an Approved Cartridge Type -, make of fuse - Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships - Are all cables lead covered as per Rule -

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.	Ampères.	Revs. per Min.	
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
" 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. 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.	
No. 1 Heating Bridge & Officers Accom.	1		1 x 35	87	78	50	Rubber M.K. LC & metalbraided
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	"

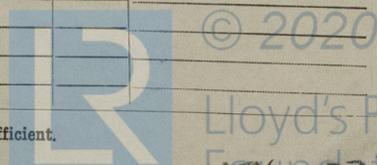
DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.).

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
Officers' Quarters	1	1 x 4	22	22.5	50	Rubber	LC & metalbraided MK
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. Mchy. (DB 10)	1	1 x 4	21	22.5	20	"	"

MOTOR 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.			
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	"	"
Large oil Discharge Pump	1	16.9	1	1 x 35	89	78	14	"	"
Ab. Oil Pump	1	8	1	1 x 10	43	38	12	"	"
Ab. 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 ... £	:	:	When applied for,
see Rpt. 9	:	:	19
Travelling Expenses (if any) £	:	:	When received,
	:	:	19

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

Committee's Minute... **THU 12 MAR 1953**

Assigned

2m 8.50.—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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