

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report... 31st December 1943. When handed in at Local Office... 10.1.1944. Port of... GLASGOW.

No. in Survey held at... GLASGOW. Date, First Survey... 11-11-43. Last Survey... 30th December 1943.
Reg. Book. (Number of Visits... 10...)

39806 on the M.V. "SAN VITO" Tons { Gross 8160
Net 4830

Built at... GOVAN GLASGOW By whom built... HARLAND & WOLFF LTD. Yard No... 1133 G. When built... 1943.

Owners... EAGLE OIL & SHIPPING CO. Port belonging to... LONDON.

Electrical Installation fitted by... HARLAND & WOLFF LTD. Contract No... —. When fitted... 1943.

Is vessel fitted for carrying Petroleum in bulk... YES. Is vessel equipped with D.F... YES. E.S.D... YES. Gy.C... YES. Sub.Sig... —.

Have plans been submitted and approved... YES. System of Distribution... TWO WIRE. Voltage of supply for Lighting... 110.

Heating... —. Power... 110. Direct or Alternating Current, Lighting... D.C. Power... D.C. 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... No, 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... 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... NEAR 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... SINDANYO, 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... YES, 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

250 AMPERE CIRCUIT BREAKER WITH OVERLOAD RELEASE & TIME LAG.

and for each outgoing circuit... DOUBLE POLE CHANGEVER SWITCH AND TWO SINGLE POLE FUSES.

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

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

equaliser connection... —. Earth Testing, state means provided... EARTH LAMPS

Switches, Circuit Breakers and Fuses, are they as per Rule... YES, are the fuses an approved type... YES, 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... 227, are the reversed current

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

did they operate... —. 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... 4.3 lbs, 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... —.



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. **ALL CABLES LEAD COVERED ARMOURED AND BRAIDED EXCEPT CABLES IN ACCOMMODATION SPACES WHICH ARE LEAD COVERED MAINS CLIPPED TO PERFORATED STEEL TRAYS IN MACHINERY SPACES AND RUN IN RACKS ALONG GANGWAYS - ACCOMMODATION SPACES CLIPPED.**

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 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.

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. **YES**, if so, how are they protected. **BY SPECIAL GASLIGHT FITTINGS WIRE WOUND FROM OUTSIDE SPACES WITH L.C.A.B. CABLE.**

and where are the controlling switches fitted. **AT DISTRIBUTION BOXES REMOTE FROM SPACES**, are all fittings suitably ventilated. **YES**, are all fittings and accessories constructed and installed as per Rule. **YES**. Searchlight Lamps, No. of, whether fixed or portable. are their fittings as per Rule. 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. **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. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. **YES**. Control Gear and Resistances, are they constructed and fitted as per Rule. **YES**. Lightning Conductors, where required are they fitted as per Rule. **YES**. 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. **YES**, are all fuses of the cartridge type. **YES**

are they of an approved type. **YES**. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships. **YES**. Are the cables lead covered as per Rule. **YES**. 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			Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.			Fuel Used.	Flash Point of Fuel.
MAIN	1	25	110	227	675	STEAM ENGINE		
	1	25	110	227	675	DIESEL ENGINE	DIESEL OIL.	ABOVE 150° F.
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	37/103	227	240	45	ROBBE	L.C.A.B.
" " EQUALISER								
MAIN GENERATOR,	25	1	37/103	227	240	65	"	"
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 ...							
SUBSWITCHBOARD AMIDSHIPS	1	37/072	12A	152	700	ROBBE	L.C.A.B.
ENGINE ROOM DBS M+M2 POWER	1	19/072	95	97	22A	"	"
SECTION BOX NO2. AFT ROOM LIGHTING.	1	19/052	50	64	110	"	"
SECTION BOX NO3. EK. LIGHTING.	1	7/064	40	46	108	"	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	19/064	15	83	800	ROBBE	L.C.A.B.+L.C.
NAVIGATION LIGHTS	1	7/029	1.5	15	800	"	"
LIGHTING AND HEATING							
STEAM RAISING OIL HEATER.	1	7/064	45.5	46	90	"	L.C.A.B.
D/G INSTALLATION.	1	37/064	109	130	60	ROBBE	L.C.A.B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
TURNING GEAR MOTOR.	1	10	1	19/064	80	83	100	ROBBE L.C.A.B.
NO2 THERMOTANK AFT ROOM VENTS	1	4	1	7/052	33	37	280	" L.C.A.B.+L.C.
NO1 " MID " VENTS.	1	3	1	7/044	25	31	100	" L.C.
THERMOTANK ENG. ROOM VENT FAN	1	1/2	1	7/036	12.9	24	180	" L.C.A.B.
WORKSHOP MOTORS								
" " LATHE	1	2	1	7/036	17.6	24	40	"
" " DRILL	1	2	1	7/052	17.6	24	28	"
" " GRINDER.	1	2 1/4	1	7/036	19	31	60	"
STEAM RAISING PUMP	1	1/4	1	3/029	2.6	5	90	"
STANDBY FUEL OIL PUMP.	1	1 1/2	1	7/029	13	15	150	"
FUEL OIL PURIFIER	1	3	1	7/052	24.8	31	48	"
LUB. OIL PURIFIER	1	3	1	7/052	24.8	31	48	"

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.

For HARLAND AND WOLFE, LIMITED

Agall
Govan Secretary

Electrical Engineers.

Date 4th JANUARY 1944

COMPASSES.

Minimum distance between electric generators or motors and standard compass 17 FEET FROM W/T MOTOR ALTERNATOR

Minimum distance between electric generators or motors and steering compass 13 " " " " "

The nearest cables to the compasses are as follows:—

A cable carrying 21 Ampères 10 feet from standard compass 9 feet from steering compass.

A cable carrying 0.36 Ampères 4 feet from standard compass 4 feet from steering compass.

A cable carrying 0.1 Ampères led into feet from standard compass 6 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.

For HARLAND AND WOLFE, LIMITED

Grace
Govan Secretary

Builder's Signature.

Date 4th JANUARY 1944

Is this installation a duplicate of a previous case YES If so, state name of vessel M.V. SAN VICERANO

Plans. Are approved plans forwarded herewith No If not, state date of approval 13th MAY 1942

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.)

The Echo Sounding device Wiring is installed but instruments not available.

The electrical equipment of this vessel has been fitted on board under special survey, tested under full working conditions and found satisfactory.

Notice
24
18/1/44

Total Capacity of Generators 50 Kilowatts.

The amount of Fee ... £ 27: 10 :
Travelling Expenses (if any) £ : :
When applied for 11 JAN 1944
When received 19.....

R. P. Stone

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 11 JAN 1944

Assigned

5m. 1.38.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the spaces for Committee's Minute.)



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