

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report... 30-9-49 When handed in at Local Office... 19..... Port of... Groningen

No. in Survey held at... Harlingen Date, First Survey... 19-10-48 Last Survey... 21-9-49
Reg. Book. (Number of Visits... 10.....)

on the... Twin screw vessel "Orca" Tons (Gross... 499.94)
(Net... 362.54)

Built at... Glasgow By whom built... Messrs. Brown Yard No. unkn. When built... during war 1940/45

Owners... N.V. "Orca" Port belonging to... Rotterdam

Electrical Installation fitted by... (concerning conv.) W. Mulder, Groningen Contract No. When fitted

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

Have plans been submitted and approved... yes System of Distribution... 2 wire insulated syst. Voltage of supply for Lighting... 220

Heating... Power... 220 Direct or Alternating Current, Lighting... dir. Power... dir. If Alternating Current state periodicity... — Prime Movers, yes

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... to 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... no (see general remarks) and the results found as per rule... — Are the lubricating arrangements and the construction of the generators as per rule... yes Position of Generators... 1 at centre line a.e.; 1 at portside a.e.; 1 at portside main eng. 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... engine room casing in top

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... insulation board, Pertinax, if of synthetic insulating material is it an Approved Type... —, 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 on 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... DPDT switch and DP fuses.

and for each outgoing circuit... DP switch and DP fuse

are compartments containing switchboards composed of fire-resisting material or lined as per Rule... yes Instruments on main switchboard... 4 ammeters... 4 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 conn. to "E" through DP fuses and SP switch

switches, Circuit Breakers and Fuses, are they as per Rule... yes, are the fuses an approved 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... —, 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 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... — Is the maximum fall of pressure between bus bars and any point under maximum load... <6%, are the ends of all cables having a sectional area of 0.04 inch and above provided with soldering sockets... yes Are paper insulated and varnished cambric insulated cables sealed at the ends... —

for charging
starting batteries

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	1	30	220	133	1100	Paxman Ric. aux. e.	Diesel oil	above 150°
	1	15	220	68	1100	Lister aux. eng.	" "	" "
	1	8	220	36	1500	P3 main engine	" "	" "
EMERGENCY ...	1		24	35		CAV	" "	" "
BOATBY TRANSFORMER	1		24	35		CAV	" "	" "
	1		30	50		Lister aux. engine	" "	" "

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (feet plus return lead).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. <small>See table on pg. 100.</small>	In the Circuit.	Rule.			
MAIN GENERATOR	30	1	70	133		8		
" " EQUALIZER	15	1	35	68		8	NJR	GP and NWB
" "	8	1	16	36		H		
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

	No.	^{B.H.P.} KW		mm ²		m	
Siemens Schuckert 1450 RPM	1	3.3	1	10	18.1		
Mach. Fabr. Esslingenwerk Connstatt 1290 RPM	1	5.5	1	10	30.7		
to capstan	10 HP	1	10	38			
to aft cargowinch	10 HP	1	10	38	9		NIR GC & NWB
to fore cargowinch	10 HP	1	10	38	68		
to windlass	20 HP	1	10	75	91		

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.

M. J. J. J.
Electrical Engineers. Date *13-10-49*

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 Ampères feet from standard compass 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

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

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

Builder's Signature. Date.....

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

Plans. Are approved plans forwarded herewith..... *no* If not, state date of approval *15-10-1948 ; 5-5-1949*

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith *no [see general remarks]*

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

This vessel was originally owned by the British Admiralty and was a landingcraft, marked "US LCF-12"; she has meanwhile been converted into a cargo ship.

The original electrical equipment has been maintained but the wiring layout has been renewed and the main switchboard has been reconstructed. During reconstruction the electrical equipment was examined and found satisfactory.

The refitting has been carried out in accordance with approved plans.

On completion the whole plant has been tried out under working conditions and found satisfactory.

This equipment is in my opinion suitable for a classed vessel.

Total Capacity of Generators..... *53 + 3* Kilowatts.

The amount of Fee £	<i>please see Special Survey Report.</i>	When applied for,
Travelling Expenses (if any) £		When received,

M. J. J. J.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....

Assigned..... *Deferred*



© 2021

Lloyd's Register
Foundation