

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

24 DEC 1943

Date of writing Report 6<sup>th</sup> DECEMBER 1943 When handed in at Local Office 19 Port of GLASGOW

No. in Survey held at GLASGOW Date, First Survey 7<sup>th</sup> Sept 1943 Last Survey 2<sup>nd</sup> DEC 1943  
Reg. Book. (Number of Visits 10)

39007 on the M.V. "NERITINA" Tons {Gross 8200  
Net 4770

Built at GLASGOW By whom built HARLAND & WOLFF LTD. Yard No. 1174 When built 1943

Owners ANGLO SAXON PETROLEUM CO LTD. 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 2 WIRE D.C. 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 SINDANYD, 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

SWITCH AND DOUBLE POLE FUSES

—

and for each outgoing circuit DOUBLE POLE SWITCH AND DOUBLE POLE FUSES

—

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 2

ammeters 2 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 —, 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 4.6, are the ends of all cables having a sectional area of 0.02

square inch and above provided with soldering sockets YES Are paper insulated and varnished cambric insulated cables sealed at the ends —

—



fitted as per Rule. YES **Lightning Conductors**, where required are they fitted as per Rule — **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. <sup>NO</sup> ~~PROTANAX~~ **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

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 ✓	110 ✓	273	675	STEAM ENGINE ✓	—	—
	1	30	110	273	700	DIESEL ENGINE	OIL	ABOVE 150°F
EMERGENCY ...								
ROTARY TRANSFORMER								

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 ... ..	30	1	0.2	273	296	72	PYROTENAX	CABLE
" " EQUALISER ... ..								
SHORE CONNECTION		1	0.2	250	296	126		Do.
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

[illegible]

WIRELESS		1	0.06	25	135	150	PyroTENAX CABLE.
NAVIGATION LIGHTS		1	0.0045	2	18.2	150	Do.
LIGHTING AND HEATING							
DIST. BOX NO 1	NAV. BRIDGE	1	0.0225	30	75	120	Do
"	" NO 2 UPPER BRIDGE DECK.	1	0.0045	9.5	18.2	60	Do.
"	" NO 3 BRIDGE DECK + PUMP ROOMS	1	0.0145	31	57	12	Do
"	" NO 4 PORTABLE CONNS. MID + FOUNG.	1	0.0045	11.5	18.2	12	Do
"	" NO 5 FORECASTLE.	1	0.0145	14	57	36.0	Do
"	" NO 6 PORTABLE CONNS. AFT.	1	0.007	5	28	12	Do
"	" NO 7 LIGHTING PORT AFT.	1	0.01	19	42	90	Do
"	" NO 8 " STD. AFT.	1	0.0225	17.5	75	18	Do
"	" NO 9 ENG. ROOM H.C.P. LANTERNS PORT.	1	0.007	11.5	28	10.4	Do
"	" NO 10 " " " STD.	1	0.0045	6.5	18.2	18	Do
"	" NO 11 " " WORKSHOP + STORES	1	0.0045	7.0	18.2	132	Do
"	" NO 12 " " STORES	1	0.007	7.0	28	40	Do
"	" NO 13 " " PORT	1	0.0045	4.0	18.2	156	Do
"	" NO 14 " " STD.	1	0.0045	6.5	18.2	72	Do.

[illegible]



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 WOLFF, LIMITED

Electrical Engineers.

Date 6<sup>th</sup> Dec. 1943

Given Secretary

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 15 ft - W/T motor alternator  
Minimum distance between electric generators or motors and steering compass 16 ft - do.

The nearest cables to the compasses are as follows:—

A cable carrying 0.1 Ampères led into feet from standard compass 8 feet from steering compass.  
A cable carrying 0.1 Ampères 10 feet from standard compass led into feet from steering compass.  
A cable carrying 30 Ampères 12 feet from standard compass 9 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 WOLFF, LIMITED

Builder's Signature.

Date 6<sup>th</sup> Dec 1943.

Given Secretary

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 25<sup>th</sup> December 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 electrical installation of this vessel has been fitted on board under special survey, tested under full working conditions and found satisfactory.  
The materials and workmanship are good.

Noted  
L.F.  
31/12/43.

Total Capacity of Generators 60 Kilowatts.

The amount of Fee £ 28 : 10 : When applied for, 21 DEC 1943

Travelling Expenses (if any) £ : : When received, 19.

Committee's Minute GLASGOW 21 DEC 1943

Assigned

R.P. Storie.  
Surveyor to Lloyd's Register of Shipping.