

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report 19th DEC. 44. When handed in at Local Office No. 12 1944 Port of GLASGOW.

No. in Survey held at GLASGOW. Date, First Survey 8th Nov 1944 Last Survey 18th DEC. 1944.
Reg. Book. (Number of Visits 4)

91118. on the M.V. 'NISO' Tons {Gross 273
Net 177

Built at BELFAST. By whom built HARLAND & WOLFF LTD. Yard No. 1198 When built 1944

Owners ANGLO-SAXON PETROLEUM CO. LTD. Port belonging to LONDON.

Electrical Installation fitted by HARLAND & WOLFF LTD. Contract No. 1198. When fitted 1944

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 for 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 Yes 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 Yes, 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 Insulation, 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 -

D.P. Switch and fuses

D.P. Switch and fuses

and for each outgoing circuit D.P. Switch and fuses

D.P. Switch and fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule - 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 lamp.

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 600k. 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 Yes

Yes

Yes

Yes

Yes

Yes

Yes

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.

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 ✓	175 ✓	675 ✓	Steam engine's ✓		
	1 ✓	30 ✓	110 ✓	175 ✓	675 ✓	Direct engine's	oil	above 160°F
EMERGENCY ...								
ROTARY TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load 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 NO. 1. (DIESEL) ...	30	1	0.2	273	246 ✓	36		PYROTEK MAX. CABLE.
" " EQUALISER ...								" "
MAIN GENERATOR NO. 2. (STEAM) ...	30	1	0.2	273	246 ✓	172		" "
SHORE CONNECTION.	-	1	0.2	250	246 ✓	102.		" "
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
GENERATOR ...								

[illegible]

WIRELESS	1	0-06	25	135	150	PYROTENAX
LIGHTING LIGHTS 2061	1	0-0045	10	15	150	
LIGHTING AND WIRING DB2 NATE GEORGE LTR	1	0-0145	16	57	60	.
DB2 GEORGE DEX LTR PORT	1	0-0145	27	57	12	.
DB4 STARS	1	0-0145	27	57	18	.
DB5 FORECASTLE LTR	1	0-0145	14	57	360	.
DB6 PORTABLE COMM AFT	1	0-007	10	28	84	.
DB7 ALCONN PORT	1	0-0225	21	75	132	} MAINS LOOPING.
DB9 PORT	1	0-0225	12	75	60	
DB8 ALCONN. STARS	1	0-0225	11	75	84	.
DB10	1	0-0225	12	75	12	.
DB11 H.C.P. LANTERNS. PORT	1	0-007	13	28	180	.
DB12 STARS	1	0-0045	8	15	150	.
DB13 WORKSHOP STORES LTR	1	0-0045	6	15	60	.
DB14 MOTOR ROOM STORES	1	0-007	6	28	180	.
DB15 TANK TOP PORT	1	0-0045	8	15	210	.
DB16 TANK TOP STARS	1	0-0045	7	15	60	.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
TURNING GEAR	1	10	1	0-014	80	104	90		PYROTEK MAX.
MID AGM VENT FAN	1	4.75	1	0-0145	39.5	57	168		
AFT AGM VENT FAN.	1	4.75	1	0-0145	39.5	57	240		

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

21-12-44

COMPASSES.

Minimum distance between electric generators or motors and standard compass

15 feet from. w/s Motor ALTERNATOR

Minimum distance between electric generators or motors and steering compass

15 feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.1 Ampères 100 feet from standard compass 100 feet from steering compass.

A cable carrying 10 Ampères 10 feet from standard compass 8 feet from steering compass.

A cable carrying 25 Ampères 12 feet from standard compass 10 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 0 degrees on 0 course in the case of the

standard compass, and 0 degrees on 0 course in the case of the steering compass.

For HARLAND AND WOLFF, LIMITED

Builder's Signature.

Date

21-12-44

Is this installation a duplicate of a previous case. If so, state name of vessel

Plans. Are approved plans forwarded herewith

no.

If not, state date of approval

25/12/44

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

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

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

Noted

Yours

15.1.45

Total Capacity of Generators 60 Kilowatts.

The amount of Fee

£ 28 : 10.

When applied for,

9 JAN 1945

Travelling Expenses (if any)

When received.

10

Committee's Minute

GLASGOW

9 JAN 1945

Assigned

SEE ACCOMPANYING MACHINERY REPORT.



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