

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

4 FEB 1943

Date of writing Report.....19.....

When handed in at Local Office.....

28/11

43

Port of NEWCASTLE-ON-TYNE.

No. in Survey held at NEWCASTLE-ON-TYNE

Date, First Survey

8 Oct 1942

Last Survey

7 Jan 1943

19 43

Reg. Book.

(Number of Visits.....7.....)

on the

M.S. "NATICINA"

Tons

Gross 8179  
Net 4767

Built at NEWCASTLE-ON-TYNE

By whom built

HANTHORN LESLIE &amp; CO LTD

Yard No.

652

When built 1942

Owners

Anglo Saxon Petroleum Co. Ltd

Port belonging to

LONDON

Electrical Installation fitted by

HANTHORN LESLIE &amp; CO. LTD.

Contract No.

652

When fitted 1942

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

YES

Power YES

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

Engine room

Starboard side

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

Starboard side

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

"INTERDYM"

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

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 fuse

and for each outgoing circuit

Double pole switch and double pole fuse

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 connected to E through switches and fuses

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

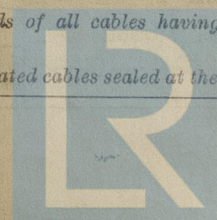
state maximum fall of pressure between bus bars and any point under maximum load

44.4V

are the ends of all cables having a sectional area of 0.2

square inch and above provided with soldering sockets YES

Are paper insulated and varnished cambric insulated cables sealed at the ends YES





DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULA- TED WITH.	HOW PROTECTED.
		No. in Parallel Per Fole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..	2 x 25	1	37.072	224	246	3968	V.C.	L.C. & A.
" " EQUALISER ... ..								
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.								
Lathe motor	1	2	1	7/036	18	24	60	V.I.P.	L.C.A.	
Drill motor	1	3	1	7/044	26	31	60	V.I.P.	L.C.A.	
Grinder motor	1	3	1	7/044	24	31	60	V.I.P.	L.C.A.	
Lub. oil purifier	1	2	1	7/036	16	24	150	V.I.P.	L.C.A.	
Lub. oil pump	1	10/8	1	7/029	14	15	150	V.I.P.	L.C.A.	
Turning motor	1	4.5	1	10/064	60	83	204	V.I.P.	L.C.A.	
Vert. fan motor off	1	4	1	7/064	32	46	300	V.I.P.	L.C.A.	
Vert. fan motor max ships	1	4	1	7/064	32	46	190	V.I.P.	L.C.	
Centrif. Exhaust fan	1	.09	1	3/036	18	10	46	V.I.P.	L.C.	
Refry motor	1	.6	1	3/036	4	10	60	V.I.P.	L.C.	
Rough mixer	1	25	1	3/036	2	10	150	V.I.P.	L.C.	



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 R. & W. HAWTHORN, LESLIE & CO. LIMITED

*Stephenson*

Electrical Engineers.

Date *27/1/43*

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass *180 Feet*

Minimum distance between electric generators or motors and steering compass *170 Feet*

The nearest cables to the compasses are as follows:—

A cable carrying *.14* Ampères *inside* feet from standard compass feet from steering compass

A cable carrying *.14* Ampères feet from standard compass *inside* 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 *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 *EVERY* course in the case of the standard compass, and *NIL* degrees on *EVERY* course in the case of the steering compass.

FOR R. & W. HAWTHORN, LESLIE & CO. LIMITED

*Stephenson*

Builder's Signature.

Date *27/1/43*

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *"NICANIA"*

Plans. Are approved plans forwarded herewith *—* If not, state date of approval *1.12.41*

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 was installed in accordance with the approved plans.*

*The materials used are of good quality, and the workmanship is good.*

*On completion, the equipment was tested and operated under working conditions, and the Insulation Resistance of all machinery and circuits measured, with satisfactory results.*

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

*Noted*

*9/2/43*

Total Capacity of Generators *60* Kilowatts.

The amount of Fee *See a/c* £ *27 : 10* :

When applied for, *2 FEB 1943*  
When received, *19*

Travelling Expenses (if any) £ :

*A. A. Diment*  
Surveyor to Lloyd's Register of Shipping.

TUE 16 FEB 1943

Committee's Minute

Assigned

*See Nwc. J.E. 101017*



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Foundation