

Rpt. 13.

No. 67166

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

10 JUN 1943

Date of writing Report. 21<sup>st</sup> Mar 43. When handed in at Local Office. 7<sup>th</sup> Apr 43. Port of GLASGOW.No. in Survey held at GLASGOW. Date, First Survey. 9<sup>th</sup> Feb 1943. Last Survey. 11<sup>th</sup> Mar 43. Reg. Book. (Number of Visits. 6.)

on the H.M.S. 'OXNA' Tons { Gross. Net.

Built at GLASGOW. By whom built A &amp; J. INGLIS LTD. Yard No. 1172P When built 1943

Owners. ADMIRALTY. Port belonging to.

Electrical Installation fitted by TELFORD GRIER &amp; MACKAY. Contract No. 1172P When fitted 1943

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

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

Heating. 110. Power. 110. Direct or Alternating Current, Lighting. DC. Power. AC. 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. Are turbine emergency governors fitted with a

trip switch as per Rule. Generators, are they compound wound. are they level compounded under working conditions.

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. are shunt field regulators provided. 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. and the results found as per rule. Are the lubricating arrangements and the construction

of the generators as per rule. Position of Generators. In engine room.

is the ventilation in way of generators satisfactory. are they clear of inflammable material. 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. are the bedplates and frames earthed. and the prime movers and generators in metallic

contact. Switchboards, where are main switchboards placed. near generators.

are they in accessible positions, free from inflammable gases and acid fumes. are they protected from mechanical injury and damage from water, steam

and oil. if situated near unprotected combustible material state distance from same horizontally. and vertically. what insulation

material is used for the panels. fittings mounted on. Micanite Bars. 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.

Is the construction as per Rule. including accessibility of parts. absence of fuses on the back of the board. individual fuses

to pilot and earth lamps, voltmeters, etc. locking of screws and nuts. labelling of apparatus and fuses. fuses on the "dead"

side of switches. Description of Main Switchgear for each generator and arrangement of equaliser switches.

D.P. Switch and Fuse.

and for each outgoing circuit. D.P. Switch

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Instruments on main switchboard. 1

ammeters. 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. Adm. Patt. are the fuses an approved type. Adm. Patt. are all fuses labelled as

per Rule. If circuit breakers are provided for the generators, at what overload current did they open when tested. are the reversed current

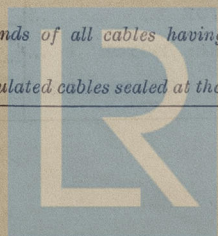
protection devices connected on the pole opposite to the equaliser connection. have they been tested under working conditions, and at what current

did they operate. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule.

Cables, are they insulated and protected as per the appropriate Tables of the Rules. if otherwise than as per Rule are they of an approved type. H.E.

state maximum fall of pressure between bus bars and any point under maximum load. 4.10 lbs. are the ends of all cables having a sectional area of 0.04

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



Lloyd's Register Foundation

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PARTICULARS OF GENERATING PLANT.								
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	15	110	136	500	Steam engine		
EMERGENCY ... ..								
ROTARY TRANSFORMER								

## PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel
MAIN ... ..	1	15	110	136	500	Steam engine		
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 For Feeds.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
702 mfd MAIN GENERATOR ... ..	15	1	15	136	152	24	Rubber	L.C.
" " EQUALISER ... ..								
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
GENERATOR ... ..								

### MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

LIGHTING AND HEATING, ETC., GALLEYS.							
WIRELESS	1	.01	24	31	190	Rubber.	L.C.
NAVIGATION LIGHTS	1	.007	11.5	24	190	"	"
LIGHTING AND HEATING							
10" SIGNALLING. Prof.	1	.007	18.2	24	190	"	"
ASDIC	1	.01	14	31	246	"	"
AFT LIGHTING. DB	1	.01	20	31	16	"	"
FORD " DB	1	.01	23	31	170	"	"
AFT HEATING. DB	1	.0225	22	46	90	"	"
FORD HEATING. DB	1	.0225	43	46	150	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.
ENGINE ROOM FAN	1	15
	1	.007
	134	24
	60	Rubber
		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.

TELEFORD GRIER MACKAY & CO. LD

Electrical Engineers.

Date 29-5-43

J. Norman Ferguson DIRECTOR.

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass

16 feet

Minimum distance between electric generators or motors and steering compass

12 feet

The nearest cables to the compasses are as follows:—

A cable carrying 18 Ampères led into feet from standard compass led into feet from steering compass.

A cable carrying 11.5 Ampères 8 feet from standard compass 8 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 mit degrees on anf course in the case of the standard compass, and mit degrees on anf course in the case of the steering compass.

A. & J. INCLIN LIMITED.

Builder's Signature

Date 2 JUNE 1943

Is this installation a duplicate of a previous case Yes

If so, state name of vessel

H.M.S. SWITHA (Trawler)  
WITH RECENT ALTERATIONS.

Plans. Are approved plans forwarded herewith

If not, state date of approval

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  
Surf and in accordance with the specification and statements of Admiralty  
requirements for this class of vessel. Tested under working conditions and  
found satisfactory. The materials and workmanship are good.

Notice

11/6/43.

Total Capacity of Generators 15 Kilowatts.

The amount of Fee

£ 15 : 0 : 0 When applied for,  
charged on  
bill sent

Travelling Expenses (if any)

£        :        :        When received.

Committee's Minute

GLASGOW

18 JUN 1943

Assigned

Transmit to Loughborough  
(See J.B. Mch. Rpt.)

S. G. Findlay

Surveyor to Lloyd's Register of Shipping.



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