

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report \_\_\_\_\_ When handed in at Local Office / \_\_\_\_\_ 19 \_\_\_\_\_ Port of Lewcastle on Tyne

No. in Survey held at Lewcastle Date, First Survey 16/4/28 Last Survey 21/5/28 1928  
 Reg. Book. \_\_\_\_\_ (Number of Visits.....)  
28352 on the M.V. Jenny Tons { Gross 4706  
 Net 2682

Built at Wallsend By whom built Swan Hunter & Co. Ltd Yard No. 1325 When built 1928

Owners A/S Olyefarth II Port belonging to Oсло

Electric Light Installation fitted by Swan Hunter & Co. Ltd. Contract No. 1325 When fitted 1928

**System of Distribution**

Double wire system

Pressure of supply for Lighting 110 volts, Heating — volts, Power 110 — volts.

Direct or Alternating Current, Lighting Direct Power Direct

If alternating current system, state frequency of periods per second —

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes

Generators, do they comply with the requirements regarding rating Yes, are they compound wound Yes

are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel Yes, is an adjustable regulating resistance fitted in series with each shunt field Yes

Are all terminals accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes

**Position of Generators**

Engine Room Port Side

is the ventilation in way of the generators satisfactory Yes, are they clear of all inflammable material Yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators — and —, are the generators protected from mechanical injury and damage from water, steam or oil Yes

are their axes of rotation fore and aft Yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes, are the prime movers and their respective generators in metallic contact Yes

**Main Switch Boards, where placed**

Engine Room Port Side

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard —

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes

are they protected from mechanical injury and damage from water, steam or oil Yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards — and —

are they constructed wholly of durable, non-ignitable non-absorbent materials Yes, is all insulation of high dielectric strength and of permanently high insulation resistance Yes

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes

and is the frame effectively earthed Yes. Are the fittings as per Rule regarding:— spacing or shielding of live parts Yes, accessibility of all parts Yes, absence of fuses on back of board Yes, proportion of omnibus bars Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches 3 pole circuit breakers

for generators, one pole acting as an equaliser switch. Outgoing circuits by means of double pole knife switches & cartridge fuses.

Instruments on main switchboard 3 ammeters 2 voltmeters — synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system Earth lamps  
coupled through switches & fuses to earth

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes



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Lloyd's Register Foundation

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	2	45	110	407	375	Diesel Engine		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	2	.7435	91	.103	461	80	K.I.R	Lead covered.
	EQUALISER CONNECTIONS	2	.3024	37	.103	240	40	50	50
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.00455	7	.029	9.5	30	50	50
	BOILER ROOM								
	ACCOMMODATION TAFT	2	.00701	7	.036	18.4	150	50	50
	HAIRTAIL	2	.00701	7	.036	7.5	450	50	Lead covered + 50
	MIDSHIP FORWARD	2	.01462	7	.052	12.0	420	50	50
	WIRELESS	2	.01462	7	.052	15	450	50	50
	SEARCHLIGHT								
	MASTHEAD LIGHT	2	.00194	3	.029	5	350	50	50
	SIDE LIGHTS	2	.00194	3	.029	5	70	50	Lead covered
	COMPASS LIGHTS	2	.00194	3	.029	2	50	50	50
	POOP LIGHTS	2	.00194	3	.029	5	540	50	Lead covered + 50
	CARGO LIGHTS	2	.00194	3	.029	3.0	50	50	Lead covered.
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP	1	.1090	19	.088	114	120	K.I.R	Lead and braided
	EMERGENCY BILGE PUMP								
	SANITARY PUMP	1	.24650	37	.093	186	95	50	50
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP	1	.03960	19	.052	60	200	50	50
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR	1	.24650	37	.093	186	108	50	50
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR	1	.1168	37	.064	115	300	50	50
	(b) MAIN MOTOR	1	.01046	7	.044	24	90	50	50
	WORKSHOP MOTOR								
	VENTILATING FANS								
	OIL PURIFIER	1	.00701	7	.036	20	60	50	50
	BOILER FEED PUMP	1	.00701	7	.036	18	200	50	50
	REARRING MOTOR	1	.03960	19	.052	48	300	50	50
	OIL FUEL MOTOR	1	.00299	3	.026	9	120	50	50

**Cables:** Single, twin, concentric, or multicore single are the cables insulated and protected as per Tables IV or V of the Rules yes

**Fall of Pressure,** state maximum between bus bars and any point of the installation under maximum load 3 bolts

**Cable Sockets and other connections,** are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets yes

**Paper Insulated Cables.** If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound yes

**Cable Runs,** are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage yes

**Support and Protection of Cables,** state how the cables are supported and protected Cables in acc. lead covered clipped  
Cables on deck L. C. & air in galvanized pipe. Cables in engine lead covered & clipped

If cables are run in wood casings, are the casings and caps secured by screws yes, are the caps screws of brass yes, are the cables run in separate grooves yes. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII yes

**Refrigerated Chambers,** if lights are fitted, are the cables and fittings in accordance with the special requirements nil

**Joints in Cables,** state if any, and how made, insulated, and protected none made

**Watertight Glands and Deck Tubes,** are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands yes

**Bushes in Beams and Non-watertight Partitions,** where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed yes state the material of which the bushes are made lead

**Earthing Connections,** state what earthing connections are fitted and their respective sectional areas nil

are their connections made as per Rule yes

**Alternative Lighting,** are the groups of lights in the propelling machinery space arranged as per Rule yes

**Emergency Supply,** state position and method of control of the emergency supply and how the generator is driven nil

**Navigation Lamps,** are these separately wired yes, controlled by separate switch and separate fuses yes, are the fuses double pole yes, are the switches and fuses grouped in a position accessible only to the officers on watch yes, has each navigation lamp an automatic indicator as per Rule yes

**Secondary Batteries,** are they constructed and fitted as per Rule yes

**Fittings,** are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight yes, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected nil

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected yes in pump room  
special gas tight fittings in galvanized iron pipe in outside pump room

where are the controlling switches situated midship accommodation box

**Searchlight Lamps,** No. of —, whether fixed or portable —, are their fittings as per Rule —

**Arc Lamps,** other than searchlight lamps, No. of —, are their live parts insulated from the frame or case —, are their fittings as per Rule —

**Motors,** are their working parts readily accessible yes, are the coils self-contained and readily removable for replacement yes, are the brushes, brush holders, terminals and lubricating arrangements as per Rule yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material yes, are they protected from mechanical injury and damage from water, steam or oil yes, are their axes of rotation fore and aft yes, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type —, if not of this type, state distance of the combustible material horizontally or vertically above the motors — and —

**Control Gear and Resistances,** are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule yes

**Lightning Conductors,** where lightning conductors are required, are these fitted as per Rule yes

**Ships carrying Oil having a Flash Point less than 150° F.** Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings yes

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office yes

All Conductors are of annealed copper conforming to British Standard Specification No. 7.  
 The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.  
 The foregoing is a correct description.

FOR SWAN, HUNTER, & WIGHAM RICHARDSON, LTD. *[Signature]* Electrical Engineers. Date \_\_\_\_\_

COMPASSES.

Distance between electric generators or motors and standard compass *136 feet*  
 Distance between electric generators or motors and steering compass *145 feet.*  
 The nearest cables to the compasses are as follows:—  
 A cable carrying *0.2* Ampères *on the* ~~foot~~ from standard compass *12* feet from steering compass.  
 A cable carrying *0.2* Ampères *12* feet from standard compass *on the* ~~foot~~ from steering compass.  
 A cable carrying *7.5* Ampères *12* feet from standard compass *8* 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 *all* course in the case of the standard compass, and *nil* degrees on *all* course in the case of the steering compass.

FOR SWAN, HUNTER, & WIGHAM RICHARDSON, LTD. Builder's Signature. Date \_\_\_\_\_  
*[Signature]*

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

General Remarks (State quality of workmanship, opinions as to class, &c. *The above installation has been fitted under special survey. The instal has been tested under working conditios + the result in my opinion is eligible for record of wireless + elec light*)

*Noted*  
*[Signature]* 19/4/24

Total Capacity of Generators *90.* Kilowatts.

The amount of Fee ... ..	£ 31 : -	:	When applied for,	30.5	19.28
Travelling Expenses (if any) £	:	:	When received,	1.6	19.28

*W.T. Badger*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

*[Signature]*

Im. 2238.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)