

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

18 FEB 1929

Date of writing Report $\frac{1}{2}$ 1929 When handed in at Local Office _____
 No. in Survey held at Odense Date, First Survey 11/12 28 Last Survey 22/1 1929
 Reg. Book. 89315 on the Singl. Sc. Motor vessel "BEAUMONT" (Number of Visits 8)
 Built at Odense By whom built Odense Staalskibsvaerk Yard No. 31 When built 1918-9
 Owners Skibskreditkassen Beaumont Port belonging to Oslo
 Electric Light Installation fitted by Os. Danske Elektricitetskompani Contract No. _____ When fitted 1929

System of Distribution 2 conductor insulated system volts, Power 220 volts.

Pressure of supply for Lighting 110 volts, Heating _____ Power direct

Direct or Alternating Current, Lighting _____

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 placed in the motor room Are the lubricating arrangements of the generators as per Rule yes

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 are the prime movers and _____

Earthing, are the bedplates and frames of the generating plant efficiently earthed yes

their respective generators in metallic contact _____

Main Switch Boards, where placed in the motor 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, 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 marble & slate, 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 mica-nite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework _____

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

individual fuses to voltmeter, pilot or earth lamp yes, connections of switches _____

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches for each generator: One 2 pole circuit breaker with overload & reverse current trip & equalizer switch as per section 3 para 2. 3 A (f), for each outgoing circuit: One 2 pole linked switch with a fuse on each pole.

Instruments on main switchboard 4 ammeters 3 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 2 sets of earth lamps (110 Volts & 220 Volts), one Voltmeter fitted with 2 seals.

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



002435-002441-0151

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 *4 volts.*

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, valves 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 *armoured cables used, in engine room laid on steel casings steel plates supported by clips; on deck laid on steel plates alongside gangway, supported by clips protected by separate grooves.* If cables are run in wood casings, are the casings and caps secured by screws *yes.* are the cap 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 *yes.*

Joints in Cables, state if any, and how made, insulated, and protected *no joints in cables.*

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 armoured 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 *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 *yes.*

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 *yes.*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *the lamps in the pump room are contained in 2 1/2 lb. gas-tight glass globes, protected by iron-guards, how are the cables led through galvanized iron tubes, carried gas-tight into fittings.* where are the controlling switches situated *on the auxiliary switchboard in the deck house amidships.*

Searchlight Lamps, No. of *1* whether fixed or portable *yes.* are their fittings as per Rule *yes.*

Arc Lamps, other than searchlight lamps, No. of *1* are their live parts insulated from the frame or case *yes.* are their fittings as per Rule *yes.*

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 *yes.* 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 *portable lamps not supplied.*

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	2	66	220	300	400	2 cyl. oil. Diesel engines	oil	above 150° F.
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER	1	18	110	164	1350	27 HP. electric		

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION	No. of Conductors	Effective Area of each Conductor Sq. Ins. Feet	COMPOSITION OF STRAND		Total Maximum Current Amperes	Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
				No.	Diameter				
	MAIN GENERATOR	2	300	61	2.502	300	20 - 52	INDIA	LEAD
	EQUALISER CONNECTIONS	1	300	61	2.502		10 - 26	RUBBER	COVERED
	AUXILIARY GENERATOR								AND
	EMERGENCY GENERATOR								STEEL
	ROTARY TRANSFORMER	2	125	37	2.08	164	12	"	WIRES
	AUXILIARY SWITCHBOARDS								ARMOURED -
	ENGINE ROOM	2	2.5	7	0.67	12	9	"	WHERE NECESSARY
	BOILER ROOM								LED THROUGH
	ACCOMMODATION AFT	2	10	7	1.35	20	86	"	GALV. IRON TUBES
	DECK HOUSE	2	10	7	1.35	15	148	"	
	SHIPS LIGHTS	2	2.5	7	0.67	3	169	"	
	WIRELESS	2	10	7	1.35	7	165	"	"
	SEARCHLIGHT								"
	MASTHEAD LIGHT	1	1.5	1	1.38	0.5	148	"	"
	SIDE LIGHTS	1	1.5	1	1.38	0.5	21	"	"
	COMPASS LIGHTS	1	1.5	1	1.38	0.2	16	"	"
	POOP LIGHTS	1	1.5	1	1.38	0.5	180	"	"
	CARGO LIGHTS								"
	ARC LAMPS								"
	HEATERS								"

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION	No. of Motors	Effective Area of each Conductor Sq. Ins. Feet	COMPOSITION OF STRAND		Total Maximum Current Amperes	Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
				No.	Diameter				
9	BALLAST PUMP	1	10	7	1.35	30	72	"	"
	MAIN BILGE LINE PUMPS								"
	GENERAL SERVICE PUMP								"
39	EMERGENCY BILGE PUMP AND SANITARY PUMP	1	10	7	1.35	30	68	"	"
30	CIRC SEA WATER PUMPS LUBRICAT. OIL	2	70	19	2.16	100	60	"	"
8	CIRC FRESH WATER PUMPS	1	10	7	1.35	27	80	"	"
1	COIL COMPRESSOR	1	2.5	7	0.67	3.5	40	"	"
8	ENGINE TURNING GEAR	1	10	7	1.35	27	45	"	"
	ENGINE REVERSING GEAR								"
	LUBRICATING OIL PUMPS								"
9	OIL FUEL TRANSFER PUMP	1	10	7	1.35	30	26	"	"
	WINDLASS								"
	WINCHES, FORWARD STEAM								"
	WINCHES, AFT								"
	STEERING GEAR								"
22	(a) MOTOR	1	50	19	1.83	75	90	"	"
	(b) MAIN MOTOR								"
4	WORKSHOP MOTOR	1	2.5	7	0.67	14	76	"	"
	VENTILATING FANS								"
1	OIL PURIFIER	1	2.5	7	0.67	3.5	16	"	"
2	"	1	2.5	7	0.67	7	18	"	"
5	OIL FUEL TRANSFER PUMP IN FORWARD PUMP ROOM	1	6	7	1.05	18	280	"	"

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.

W.

Lyngby

Electrical Engineers.

Date 6-2-1929.

COMPASSES.

Distance between electric generators or motors and standard compass ca. 15'

Distance between electric generators or motors and steering compass ca. 15'

The nearest cables to the compasses are as follows:—

A cable carrying 0.2 Ampères 2 feet from standard compass 2 feet from steering compass.

A cable carrying 0.5 Ampères 12 feet from standard compass 4 feet from steering compass.

A cable carrying 3 Ampères 6 feet from standard compass 12 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 0 degrees on any course in the case of the standard

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

PR. ODENSE STÅL- OG JERNVÆRFT
VED K. P. KOLLER

Builder's Signature.

Date 11.2.29

John Marsh Moseley

Is this installation a duplicate of a previous case yes. If so, state name of vessel M/S VARG.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The electric light & power installation as above described has been fitted in accordance with the Society's Rules, the approved plan and the requirements contained in the Secretary's letter E dated 30/11/28.

The material used for the installation is of good description throughout and the workmanship of high quality.

After completion the whole installation was tested under full load working conditions and found satisfactory.

Recommend the vessel to have notation of ELECTRIC LIGHT in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

Elec Light

19/2/29

Total Capacity of Generators 132 Kilowatts.

The amount of Fee ... £. 602.42

When applied for, 14.2.1929.

Travelling Expenses (if any) £ : : 13.3.29

When received,

Stubbins
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 22 FEB 1929

Assigned

Elec Light

Im. 228.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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