

3/4 1930

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Size of
al-111

No. 5 10 33

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 24 DEC 1930

of writing Report 3.12.1930 When handed in at Local Office 20.12.1930 Port of GLASGOW.

in Survey held at GREENOCK. Date, First Survey 15.9.30 Last Survey 9.12.30.19
g. Book. (Number of Visits.....)

442 on the M.V. "ADELLEN" Tons Gross 7983 Net

No. and d
ilt at GLASGOW. By whom built BLYTHSWOOD SHIPB^{LD} CO. LTD. Card No. 30 When built 1930

ners ADELLEN SHIPPING CO. LTD. Port belonging to LONDON.

ctric Light Installation fitted by MESSRS. CLAUD HAMILTON LTD. Contract No. 30 When fitted 1930

he Vessel fitted for carrying Petroleum in bulk YES.

tem of Distribution Double wire distributing fuse box.
110 volts, Heating 110 volts, Power 110 volts.
ect or Alternating Current, Lighting direct Power direct

ater be sh
r
ing press
the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yes.
erators, do they comply with the requirements regarding rating yes., are they compound wound yes.
they over compounded 5 per cent. yes., if not compound wound state distance between each generator -

re more than one generator is fitted are they arranged to run in parallel no., is an adjustable regulating resistance fitted in
s with each shunt field yes.

all terminals accessible, clearly marked, and furnished with sockets yes., are they so spaced or shielded that they cannot be accidentally earthed,
t circuited, or touched yes. Are the lubricating arrangements of the generators as per Rule yes.

with 7
e ventilation in way of the generators satisfactory yes. Engine Room yes., are they clear of all inflammable material yes.
situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators
none and none, are the generators protected from mechanical injury and damage from water, steam or oil yes.

their axes of rotation fore and aft yes.
thing, are the bedplates and frames of the generating plant efficiently earthed yes. are the prime movers and
respective generators in metallic contact yes.

in Switch Boards, where placed yes. Engine Room
If the generators and main switchboard are not placed in the same compartment, is each generator provided with
se on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard. Same compartment

itchboards, are they placed in accessible positions, free from inflammable gases and acid fumes yes.
they protected from mechanical injury and damage from water, steam or oil yes., if situated near unprotected
dwork or other combustible material, state distance of same horizontally from or vertically above the switchboards none and none

they constructed wholly of durable, non-ignite non-absorbent materials yes., is all insulation of high dielectric strength and of
anantly high insulation resistance yes., if semi-insulating material is used, are all conducting parts insulated from the slab
mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework yes.

is the frame effectively earthed yes. Are the fittings as per Rule regarding:— spacing or shielding of live parts
yes., accessibility of all ps yes., absence of fuses on back of board yes., proportion of omnibus
yes., individual ps to voltmeter, pilot or earth lamp yes., connections of switches yes.

in Switchgear, description of switchgear each generator and each outgoing circuit, and arrangement of equalizer switches D.P. main switches
a D.P. fuses for ea generator and D.P. C.O switches and D.P. fuses
for each out going circuit

struments on main switchboard ammeters 1 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 Lamp

ter of Shi
itches, Circuit Breakers and Fuse Cut-outs, do these comply with the requirements of the Rules yes.
int Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes.

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 3.5 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 None

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 Lead covered wires in tubing as lead covered and armoured, as lead covered only clipped to under decks etc

If cables are run in wood casings, are the casings and caps secured by screws no, are the cap screws of brass -, are the cables run in separate grooves -. 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

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 lashed Yes. state the material of which the bushes are made lead

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

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 None

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 None

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 no

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Special

explosion proof in gas tight tubing, how are the cables led mid ship accommodation (wholly steel dangerous spaces)

where are the controlling switches situated mid ship accommodation (wholly steel dangerous spaces)

Searchlight Lamps, No. of None, 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 axis rotation fore and aft Yes.

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe vented, forced draught, drip or flame proof type None, if not of this type, state distance of the combustible material horizontally or vertically above 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.

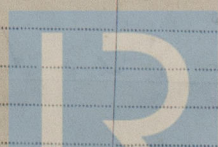
Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings Yes.

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

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	34	110	273	400	Steam engine direct coupled.			
AUXILIARY ...									
EMERGENCY ...									
ROTARY TRANSFORMER									

GENERATOR, LIGHTING AND HEATING CONDUCTORS.									
DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR ...	2	.4	34	.083	273	368	30	Y. I. R.	Lead covered in tubing
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR ...									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER } MOTOR GENERATOR...									
ENGINE ROOM...									
BOILER ROOM...	1	.004	4	.036	16	24	6	Y. I. R.	Lead covered in tubing
AUXILIARY SWITCHBOARDS									
ACCOMODATION MIDSHIP...	1	.004	4	.036	15	24	300	Y. I. R.	Lead covered in tubing
" ENGINEERS...	1	.004	4	.036	12	24	120	Y. I. R.	" " " "
" CREW	1	.0045	4	.029	10	18.2	100	Y. I. R.	" " " "
WIRELESS	1	.004	4	.036	15	24	250	Y. I. R.	" " " "
SEARCHLIGHT									
MASTHEAD LIGHT	1	.003	3	.036	36	12	180	Y. I. R.	" " " "
SIDE LIGHTS	1	.002	3	.029	36	4.8	30	Y. I. R.	Lead covered
COMPASS LIGHTS	1	.002	3	.029	25	4.8	40	Y. I. R.	" "
POOP LIGHTS									
CARGO LIGHTS	1	.003	3	.036	3	12	150	Y. I. R.	Lead covered in tubing
ARC LAMPS									
HEATERS									

MOTOR CONDUCTORS.										
DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP										
MAIN BILGE LINE PUMPS										
GENERAL SERVICE PUMP										
EMERGENCY BILGE PUMP										
SANITARY PUMP										
CIRC. SEA WATER PUMPS										
CIRC. FRESH WATER PUMPS...										
AIR COMPRESSOR										
FRESH WATER PUMP										
ENGINE TURNING GEAR...										
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP...										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR—										
(a) MOTOR GENERATOR...										
(b) MAIN MOTOR	2	2	.2	19	.083	188	236	300	Y. I. R.	Lead covered A & B.
WORKSHOP MOTORS	5	1	.06	19	.064	85	92 H.P.	30	Y. I. R.	Lead covered in tubing
VENTILATING FANS										
Oil Purifiers	2	1	.004	4	.036	20	24	100	Y. I. R.	Lead covered in tubing



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Lloyd's Register

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 CLAUD HAMILTON, LIMITED

Wat Lawrence

Electrical Engineers.

Date 14th Dec 30.

MANAGER

COMPASSES.

Distance between electric generators or motors and standard compass 230

Distance between electric generators or motors and steering compass 220

The nearest cables to the compasses are as follows:—

A cable carrying 15' Ampères 20 feet from standard compass 25' feet from steering compass.

A cable carrying 3 Ampères 10 feet from standard compass 10 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 10 degrees on any course in the case of the standard compass, and 10 degrees on any course in the case of the steering compass.

NEWBOLD SHIPBUILDING CO., LTD

John W Stewart

Builder's Signature. Date

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

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

This installation has been fitted on board under special survey, tested under full working conditions and found satisfactory.
The material and workmanship were found to be good and sound.

A.L.
20/12/30

Elec. Light
25/12/31

Total Capacity of Generators 60 Kilowatts.

The amount of Fee ... £ 28 : 10 : 0 When applied for, 8-12-30

Travelling Expenses (if any) £ — : — : — When received, 5-1-31

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 23 DEC 1930

Assigned Elec Light



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