

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... 3 SEP 1941

Date of writing Report... 3/9/41... 1941 When handed in at Local Office... 3 SEP 1941 Port of... LONDON

No. in Survey held at... SURREY DOCKS Date, First Survey... 1<sup>st</sup> May Last Survey... 1941  
Reg. Book. (Number of Visits... ONE)

90921 on the S.S. "SHEAFMEAD" (EX "SAMMEX") Tons {Gross... 7219  
Net... 4380

Built at... Baltimore By whom built... Bethlehem Fairfield S/yl. Yard No. - When built... 1943

Owners... Sheaf Steam Shipping Co. Ltd. (W.A. Smeaton & Co. Ltd. Mgrs.) Port belonging to... LONDON.

Electrical Installation fitted by... Contract No. - When fitted... 1943.

Is vessel fitted for carrying Petroleum in bulk... NO Is vessel equipped with D.F. YES E.S.D. YES Gy.C. - Sub.Sig. -

Have plans been submitted and approved... YES System of Distribution... Two wire insulated Voltage of supply for Lighting... 120

Heating... 120 Power... 120 Direct or Alternating Current, Lighting... D.C. Power... D.C. If Alternating Current state frequency... Prime Movers,

has the governing been tested and found efficient when the whole load is suddenly thrown on and off... YES Are turbine emergency governors fitted with a

trip switch as per Rule... YES 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... YES, 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... NO Have certificates of

test for machines under 100 kw. been supplied... NO and the results found as per rule... Are the lubricating arrangements and the construction

of the generators as per rule... YES Position of Generators... Generator flat, 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... adjacent to generators

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... Ebony asbestos... if of synthetic insulating material is it an Approved Type... Yes, 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... 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... D.P. Circuit breakers

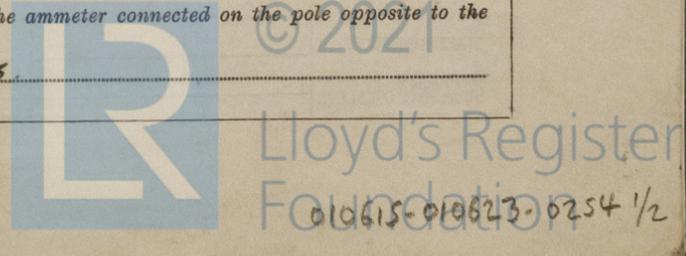
with overload & reverse current trips: T.P. isolating switch (including equaliser)

and for each outgoing circuit... D.P. switch & D.P. cartridge fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... YES Instruments on main switchboard... 3

ammeters... 3 voltmeters... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection... YES Earth Testing, state means provided... Earth Lamps



A.I.E.E. Standard                      A.I.E.E. Standard

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, are the reversed current protection devices connected on the pole opposite to the equaliser connection YES, have they been tested under working conditions YES. 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 YES, state maximum fall of pressure between bus bars and any point under maximum load less than 6 Pa., are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets NO but adequate mechanical clamps are provided. Are paper insulated and varnished cambric insulated cables sealed at the exposed ends YES. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage YES, are cables laid under machines or floorplates YES, if so, are they adequately protected YES. Are cables in machinery spaces, galleys, laundries, etc., lead covered YES or run in conduit YES. State how the cables are supported and protected supported clear of bulkheads in steel clips.

Are all lead sheaths, armoring and conduits effectually bonded and earthed YES. Refrigerated chambers, are the cables and fittings as per Rule YES. Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands YES, where unarmoured cables pass through beams, etc., are the holes effectually bushed YES and with what material lead or plastic compound. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule YES. Emergency Supply, state position None and method of control None.

Navigation Lamps, are they separately wired YES controlled by separate double pole switches YES and fuses YES. Are the switches and fuses in a position accessible only to the officers on watch YES, is an automatic indicator fitted YES. Secondary Batteries, are they constructed and fitted as per Rule YES, are they adequately ventilated YES. Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof YES. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present NO, if so, how are they protected None.

and where are the controlling switches fitted None, are all fittings suitably ventilated YES, are all fittings and accessories constructed and installed as per Rule YES. Searchlight Lamps, No. of None, whether fixed or portable None, are their fittings as per Rule None. Heating and Cooking, is the general construction as per Rule None, are the frames effectually earthed None, are heaters in the accommodation of the convection type None. Motors, are all motors constructed and installed as per Rule YES and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil YES, if situated near unprotected combustible material state minimum distance from same horizontally None and vertically None. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing NONE. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule NO. Control Gear and Resistances, are they constructed and fitted as per Rule YES. Lightning Conductors, where required are they fitted as per Rule None. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with None, are all fuses of the cartridge type None are they of an approved type None. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type None. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule YES, are they suitably stored in dry situations YES. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory YES.

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 ...	3	20	120	167	400	Single Cyl. 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 Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	20	1	0.1969	167	182V	40	Rubber	Lead covered & Armoured
" " EQUALISER ...		1	0.0329		56	20		
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR ...								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.		
AUX. SWITCHBOARDS AND SECTION BOARDS ...		1	0.0521	60	75V	20	Rubber	Lead covered & Armoured
Engine Room		1	0.0521	30	75V	700		
Cargo Flood Lights + Stores Deck		1	0.0829	60	103V	500		
Midship Accom + Cabin Stairs		1	0.0829	60	103V	540		
Midship Accom Lighting		1	0.0521	30	75V	320		
Cargo Floodlights Apt.		1	0.0521	35	75V	480		
Aft Deckhouse, Steering Post + 97ms		1	0.0829	60	103V	600		
Boat Deck Accom + Telephone		1	0.0206	30	44V	590		
Whellhouse		1	0.0829	60	103V	200		
Bridge Deck Accom + Boat Floods		1	0.0829	10	26	650		
Searchlight feeder		1						

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.		
WIRELESS ...		1	0.0206	35	44V	600		
NAVIGATION LIGHTS ...		1	0.0206	10	44V	590		
LIGHTING AND HEATING								
Battery Charging		1	0.0206	30	44V	4		
Salinity Indicator		1	0.0020	1	5V	40		

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.		
REFRIG. COMPRESSOR	1	7	1	0.0658	59	88V	600	Rubber	Lead covered & Armoured

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.

Electrical Engineers. Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass

Minimum distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

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

A cable carrying Ampères feet from standard compass 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

The maximum deviation due to electric currents was found to be degrees on course in the case of the

standard compass, and degrees on course in the case of the steering compass.

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, whether insulation tests, etc., have been made, opinions as to class, etc.)

The electrical installation of this vessel as now seen appears to have been fitted in accordance with the standards of the American I.E.E and minor repairs carried out at this port to bring the insulation tests up to Rule requirements.

The generators and circuit breakers and installation generally have been examined, tested under working conditions and found satisfactory.

It was noted that the generators are constructed, in line with American practice, for a standard temperature rise of 40°C.

The installation, as now seen, is in my opinion such as could be accepted for classification with this Society.

Note sent 11/9/47

Total Capacity of Generators 60 Kilowatts.

The amount of Fee £ 8 : 0 : 0  
 Travelling Expenses (if any) £ : :  
 When applied for, Charged on 19  
 When received, 19

*M. W. ...*

Surveyor to Lloyd's Register of Shipping.

FRI. 12 SEP 1947

Committee's Minute

Assigned See minute on

J.E. Mackay rpt.

2m.10.38.—Transfer. (MADE IN ENGLAND.) (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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