

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

24 SEP 1947

Writing Report... 22nd Sept 1947... When handed in at Local Office... 24 SEP 1947... Port of... LondonSurvey held at... London... Date, First Survey... 9th Sept... Last Survey... 15th Sept 1947... (Number of Visits... 3...)

on the... S.S. "BENVACKIE" ex: "SAMAFFRIC" Tons { Gross... 7210 Net... 4395

at... Bethlehem... By whom built... Fairfield Shipyard & Co... Yard No... —... When built... 1944

ers... Ben Line Steamers Ltd... Port belonging to... London

ical Installation fitted by... Fairfield Shipyard & Co Bethlehem... Contract No... —... When fitted... 1944

essel fitted for carrying Petroleum in bulk... No... Is vessel equipped with D.F... No... E.S.D... No... Gy.C... No... Sub.Sig... No

Plans been submitted and approved... Plan attached... System of Distribution... Two wire insulated... Voltage of supply for Lighting... 120

ing... 120 Power... 120 Direct or Alternating Current, Lighting... DC... Power... DC... If Alternating Current state frequency... — Prime Movers,

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

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

t compound wound state distance between generators... — and from switchboard... — Where more than one generator is fitted are they

ged 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... — Have certificates of

or machines under 100 kw. been supplied... — and the results found as per rule... — Are the lubricating arrangements and the construction

e generators as per rule... Yes... Position of Generators... On raised platform, starboard side

Engine room... is the ventilation in way of generators satisfactory... Yes... are they clear of inflammable material... Yes... if situated

unprotected combustible material state distance from same horizontally... — and vertically... — are the generators protected from mechanical

y and damage from water, steam and oil... Yes... are the bedplates and frames earthed... Yes... and the prime movers and generators in metallic

ct... Yes... Switchboards, where are main switchboards placed... After bulkhead on starboard

side of Engine room

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

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

ial is used for the panels... Ebony Asbestos... if of synthetic insulating material is it an Approved Type... Yes... if of

nsulating material (slate or marble) are all conducting parts insulated therefrom as per Rule... — Is the frame effectually earthed... Yes

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

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

switches... Yes... Description of Main Switchgear for each generator and arrangement of equaliser switches... I-T-E 175 ampere

P. Circuit breakers with two pole overload and reverse current protection

d 175 ampere triple pole isolating switches

r each outgoing circuit... 100, 60 and 30 ampere double pole switches and

ouble pole cartridge type fuses... metal clad A.I.E.E. Standard

mpartments containing switchboards composed of fire-resisting material or lined as per Rule... Yes... Instruments on main switchboard... 4

ers... 4... voltmeters... — synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

er connection... Yes... Earth Testing, state means provided... Lamps in series fed through resistors and fuses with

mid-point earthed.

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type X, are all fuses lab
per Rule Yes, are the reversed current protection devices connected on the pole opposite to the equaliser connection Yes, have they be
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 Yes (Plus than 6%) are the ends of all cables having a sectional area
square inch and above provided with soldering sockets Yes Adequate mechanical clamp. Are paper insulated and varnished cambric insulated cables sealed at the exposed ends
with insulating compound — or waterproof insulating tape —. Are all the cable runs in accessible positions, not exposed to drip or ac
of water or oil, high temperatures or risk of mechanical damage Yes, are cables laid under machines or floorplates Yes, if so, are they ad
protected Yes. Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit —. State how the c
supported and protected Lead covered and steel wire braided supported on s
brackets fixed to bulkhead and deckhead as required
Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes. Refrigerated chambers, are the cables and fittings as per Rule —
Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes, where unarmoured cables pas
beams, etc., are the holes effectually bushed Yes and with what material Lead. Alternative Lig
the groups of lights in the engine and boiler rooms arranged as per Rule Yes. Emergency Supply, state position —
— and method of control —
—. Navigation Lamps, are they separately wired Yes, controlled by —
double pole switches Yes and fuses Yes. Are the switches and fuses in a position accessible only to the officers on watch Yes
automatic indicator fitted Yes. Secondary Batteries, are they constructed and fitted as per Rule —, are they adequately ventilated —
Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Yes
installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present No, if so, how are they protected —
—
—, are all fittings suitably ventilated —
are all fittings and accessories constructed and installed as per Rule Yes. Searchlight Lamps, No. of One, whether fixed or portable —
Fixed, are their fittings as per Rule Yes. Heating and Cooking, is the general construction as per Rule —
are the frames effectually earthed —, are heaters in the accommodation of the convection type —. Motors, are all motors cons
installed as per Rule — and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage
steam and oil —, if situated near unprotected combustible material state minimum distance from same horizontally — and vertically —
Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing —. Have certificates of test for m
100 BHP intended for essential services been supplied and the results found as per Rule —. Control Gear and Resistances, are they com
fitted as per Rule —. Lightning Conductors, where required are they fitted as per Rule —. Ships carrying Oil having a
less than 150° F. Have all the special requirements of the Rules for such ships been complied with —, are all fuses of the cartridge type
are they of an approved type —. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed
type —. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule Yes, are they suitably s
situations Yes. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory (Please see

PARTICULARS OF GENERATING PLANT.

PARTICULARS OF TEST.						WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	Fuel Used.	Flash.
		Kilowatts.	Volts.	Ampères.	Revs. per Min.			
MAIN	3	20	120	167	400	Whitton single cylinder steam engines.		
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.			
GENERATOR	20	1	0.1969	167	182	40	Rubber	Lead covered
" EQUALISER		1	0.0329	—	56	20	"	and braided dipped to brackets fixed to bulkhead and supported as required.
AGENCY GENERATOR								
RY TRANSFORMER: MOTOR								
" GENERATOR								

MAIN DISTRIBUTION CABLES.

SWITCHBOARDS AND SECTION BOARDS ...									
Room and Shaft Alley	L.1.	1	0.0521	30	75 ✓	20	Rubber	Lead covered and	
Flood lights and Stores	L.2.	1	0.0521	20	75 ✓	660	"	brinded clipped	
Whip Arc: Cargo Floods & Refig.	L.3.	1	0.0829	40	103 ✓	450	"	to brackets fixed	
Whip Arc: Lighting.	L.4.	1	0.0829	20	103 ✓	480	"	to bulkhead and	
go Flood lights aft.	L.5.	1	0.0521	25	75 ✓	320	"	darkhead as	
at Dark Use Store J. Gear Room	L.6.	1	0.0521	10	75 ✓	420	"	required	
at Dark Arc: and Fittermaster	L.7.	1	0.0829	40	103 ✓	500	"	" "	

LIGHTING AND HEATING, ETC., CABLES.

[illegible]

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
gearing Compressor R.R.	1	7	1	0.0658	58	88	580	Rubber	Lead wound and brided clipped to bracket fixed to bulkhead and dash lead as required.

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 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 Yes If so, state name of vessel SS "SPECIALIST" Ex SA

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 installed in accordance with A.I.E.E. Standards and the installation has been tested under working conditions and the insulation of circuits and generators measured.

It was noted that the rating for temperature rise generators was 40°C.

The installation is in my opinion such as could be accepted for Classification subject to the following repairs being carried out:

(a) An alternative supply to the Navigation Lights is to be provided.

(b) The following circuits to have their insulation tests brought up to requirements:- (at main switchboard) L.1. Engine Room; L.3. Midship

L.4. Midship Acc; L.7. Boat Deck Acc; L.9. Bridge deck.

(c) Nos 1 & 3 Generator voltmeters to be recalibrated to facilitate parallel operation of

(d) No 3 Generator field regulator to be overhauled. (e) Distribution boards to be

(f) A set of correctly wired fuses to be provided throughout vessel and spare

(g) Revise - Binnacle Light feed to bridge and Deck lights port side port

Total Capacity of Generators 60 Kilowatts.

Note: The above repairs are to be carried out upon the vessel at the port of Lieke.

The amount of Fee ... £

When applied for, 19

Travelling Expenses (if any) £

When received, 19

J.H. Tiskell.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Deferred

Su F.E. Mucky. rpt.



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