

FOR THE INFORMATION OF THE COMMITTEE

Rpt. 13.

No. 71780

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office, 11th May 1947

Date of writing Report, 14th May 47 When handed in at Local Office, 31.5.47 Port of Glasgow

No. in Survey held at Ardrossan Date, First Survey 27th March 1947 Last Survey 8th May 1947
Reg. Book. (Number of Volls.....)

on the S.S. "NARVA" (EX EMPIRE CONFERENCE) Tons { Gross 1991
Net 1046

Built at Gävle By whom built Gävle Uvss & Verkstads Nya A/B Yard No. — When built 1943

Owners (Scottish Navigation Co. (Misses Ellen & Co. Ltd. (Glasg.) Port belonging to London

Electrical Installation fitted by — Contract No. — When fitted —

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 No System of Distribution Single wire, hull return Voltage of supply for Lighting 110

Heating — Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state periodicity — Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off Yes Are turbine emergency governors fitted with a

trip switch as per Rule — 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 No, 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

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 In Engine Room

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 Near 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 Marble, if of synthetic insulating material is it an Approved Type —, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Yes 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 Yes, 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 Single pole switch

and fuse.

and for each outgoing circuit Single pole C.O. switch and fuse.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule — Instruments on main switchboard 2

ammeters 2 voltmeters — synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection — Earth Testing, state means provided None — hull return

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type Filled Cartridge Fuses

per Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested —, are the reversed current

protection devices connected on the pole opposite to the equaliser connection —, have they been tested under working conditions, and at what current

did they operate — 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 No, if otherwise than as per Rule are they of an approved type No

state maximum fall of pressure between bus bars and any point under maximum load 2.4V are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends —

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

150 feet

Minimum distance between electric generators or motors and steering compass

145 feet

The nearest cables to the compasses are as follows:—

A cable carrying 01 Ampères led into feet from standard compass led into feet from steering compass.

A cable carrying 1.5 Ampères 10 feet from standard compass 6 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 Nil degrees on Any course in the case of the

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

Builder's Signature.

Date

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

Plans. Are approved plans forwarded herewith. None available If not, state date of approval

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

The installation of this vessel consists of a $\frac{1}{2}$ kw generator, G.E.C. NO S.T. 2884/11 110V 68A 550r.p.m., a 6 kw generator, ASEA NO 1668409 115V 52A 1000r.p.m., Main switchboard and five main circuits. Excepting minor repairs effected with L.C. cable at this time, cables are rubber insulated and protected with metal braid armouring. Circuits are protected by either filled cartridge fuses or automatic overload cutout switches; the latter were tested with satisfactory results.

The entire electrical equipment was examined, I.R. tests taken, and the installation tried under full working conditions. All found satisfactory.

For recommendations as to class, see Report 9.

Noted Thus 18.7.47

Total Capacity of Generators 13½ Kilowatts.

The amount of Fee ... £ 6 : - : When applied for, 10 JUN 1947

Travelling Expenses (if any) £ : : When received, 19.....

Committee's Minute

GLASGOW

10 JUN 1947

Assigned

SEE ACCOMPANYING MACHINERY REPORT.

Surveyor to Lloyd's Register of Shipping.



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