

Rpt. 13.

No. 12993

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report June 17th 1940 When handed in at Local Office June 17th 1940 Port of Gothenburg
 No. in Survey held at Gothenburg Date, First Survey 7th Feb Last Survey 7th May 1940
 Reg. Book No. 29780 on the M.V. BELLONA (Number of Visits.....)
 Tons { Gross 11267
 Net 6800
 Built at Gothenburg. By whom built A.-B. Östaverken Yard No. 540 When built 1940
 Owners Rederiaktiebolaget Zenit. Port belonging to Gothenburg.
 Electric Light Installation fitted by A.-B. Östaverken. Contract No. 540 When fitted 1940
 Is the Vessel fitted for carrying Petroleum in bulk yes

System of Distribution Two wire system

Pressure of supply for Lighting 110 volts, Heating 220 volts, Power 220 volts.

Direct or Alternating Current, Lighting Direct Power Direct

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 temperature rise 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

Have certificates of test results for machines under 100 kw. been submitted and approved yes Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing yes

Have certificates for generators under 100 kw. been supplied and approved 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

Are the lubricating arrangements of the generators as per Rule yes

Position of Generators Three at the port and one at the starboard side of the motorroom, 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

Earthing, are the bedplates and frames of the generating plant efficiently earthed yes are the prime movers and their respective generators in metallic contact yes

Main Switch Boards, where placed on a platform at the port side of the motorroom

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, are they protected from mechanical injury and damage from water, steam or oil 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 of mastic, is all insulation of high dielectric strength and of permanently high insulation resistance yes

is it of an approved type yes, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework yes

is the non-hygroscopic insulating material of an approved type yes, and is the frame effectively earthed yes

Are the fittings as per Rule regarding:— spacing or shielding of live parts yes, accessibility of all parts yes, absence of fuses on back of board yes, temperature rise of omnibus bars yes

individual fuses to voltmeter, pilot or earth lamp yes, are moving parts of switches alive in the "off" position no

are all screws and nuts securing connections effectively locked yes are any fuses fitted on the live side of switches no

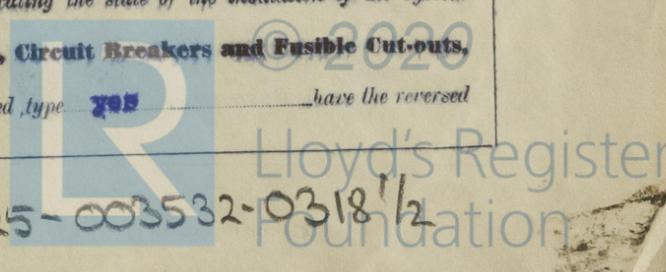
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches For Generators: A double pole circuit breaker with overload and reversed current trips and a single pole equaliser switch. For outgoing circuits: Double pole switches and a fuse at each pole.

Are turbines driven generators fitted with emergency trip switch as per rule - Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material yes

Instruments on main switchboard 3 ammeters 3 voltmeters - synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection yes

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system Ohm meters

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes are the fusible cutouts of an approved type yes have the reversed



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The Electrical Equipment is installed in accordance with the approved plans.
 All Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.

AKTIEBOLAGET GÖTAVERKEN

Electrical Engineers.

Date June 17th, 1940.

COMPASSES.

Minimum distance between electric generators or motors and standard compass about 9 met.

Minimum distance between electric generators or motors and steering compass " 8 "

The nearest cables to the compasses are as follows:—

A cable carrying 25 Amperes 21 feet from standard compass 18 feet from steering compass.

A cable carrying 1 Amperes 9 feet from standard compass 6 feet from steering compass.

A cable carrying _____ Amperes _____ feet from standard compass _____ feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power Compasses not adjusted before the vessel was delivered to Owners.

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 _____ course in the case of the standard

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

AKTIEBOLAGET GÖTAVERKEN

Builder's Signature.

Date June 17th, 1940.

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

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

been fitted on board the vessel under my inspection & to my satisfaction, the materials & workmanship are good.

The installation has been tested, examined under working conditions & found in order.

The generators over 100 kw. have been inspected by the Society's Surveyors during manufacture & testing, and the maker's test certificates for the electric motor & the steam driven generator are attached.

Wick
L.H.
 20/9/40.

Total Capacity of Generators 435 Kilowatts.

The amount of Fee Got. ofc No. 853:50 : 18th June 40 (When applied for,)
Open. ofc No. 2113:35

Travelling Expenses (if any) No. 24:38 : 20th Aug 1940 R.S. 2/9 (When received.)

W.S. Lijer
 Surveyor to Lloyd's Register of Shipping.

FRI. 23 AUG 1940.

Committee's Minute

Assigned See fol. J.C. 12993

2m. 12.36.—Transfer. The Surveyors are requested not to write on or below the space for Committee's Minute.)

