

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

APR 5 1939

Received at London Office

Date of writing Report 19 When handed in at Local Office 4/4/39 Port of Newcastle-on-Tyne

No. in Survey held at Newcastle/Dyre Date, First Survey 30 Dec/38 Last Survey 20 March 1939

Reg. Book. SUFF. 90254 on the S.S. "Thornliebank" Tons (Gross) (Net)

Built at South Shields By whom built J. Readhead & Sons Ltd Yard No. 515 When built 1939

Owners Bank Line Ltd Port belonging to Glasgow

Electric Light Installation fitted by Clarke Chapman & Co. Ltd Contract No. 515. When fitted 1939

Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution Double wire

Pressure of supply for Lighting 110 volts, Heating 110 volts, Power 110 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 No, 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 Engine room starboard side, 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 Engine room starboard side

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 Yes, 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

D.P.B. + D.P. fuses on dynamo mains. D.P. fuses + 3P switch on each outgoing circuit

Are turbine 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

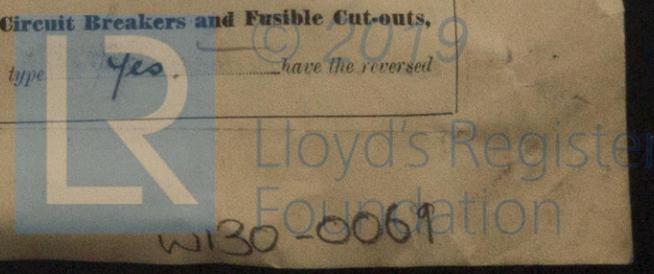
Instruments on main switchboard 1 ammeters 1

voltmeters synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection

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

E lamps coupled to E through switches & fuses

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



W130-0069



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.

For Clarke, Chapman & Co., Ltd.

*W. W. Taylor* Director Electrical Engineers.

Date *23<sup>rd</sup> March 1939*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *256 feet*

Minimum distance between electric generators or motors and steering compass *245 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *.25* Ampères *on the* feet from standard compass *12* feet from steering compass.

A cable carrying *.25* Ampères *12* feet from standard compass *on the* 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* *So he filled in after adjustment of compasses*

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

For JOHN READHEAD & SONS, LTD.

*J. H. Readhead* Builder's Signature. Date

Chairman & Managing Director.

Is this installation a duplicate of a previous case *Yes*. If so, state name of vessel *S.S. "Devotbank"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The above inst<sup>n</sup> has been fitted out under special survey. The workmanship + materials used were good. The inst<sup>n</sup> has been tested under working conditions found satisfactory. The insulation resistance is good. This vessel is eligible in my opinion for notation E.S.D.*

*W.T.B.*  
*6/4/39*

Total Capacity of Generators *20* Kilowatts.

The amount of Fee ... £ *17 : 10* : { When applied for, *31/4/1939*

Travelling Expenses (if any) £ : : { When received, *14.4.39*

*W.T. Badger*  
Surveyor to Lloyd's Register of Shipping.

WED 12 APR 1939

Committee's Minute  
Assigned *See Nwc. J6 97522*

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