

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office -5 APR 11

PR 125

Date of writing Report 19 When handed in at Local Office -4 APR 1935 Port of Sunderland.
No. in Survey held at Sunderland. Date, First Survey Feb 12 Last Survey Apr 2 1935
Reg. Book. Supt 89978 on the M. V. "Kinross" (Number of Visits 10)

Tons { Gross 14956
30+3
Net 14580

Built at Sunderland. By whom built Wm Doxford & Sons Ltd Yard No. 613 When built 1935
Owners B. J. Sutherland & Sons Ltd Port belonging to Newcastle.
Electric Light Installation fitted by Campbell Daleswood & Sons Ltd Contract No. 613 When fitted 1935.
Is the Vessel fitted for carrying Petroleum in bulk no.

System of Distribution Double wire
Pressure of supply for Lighting 110 volts, Heating —
Power 110 volts.

Direct or Alternating Current, Lighting DC Power DC

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
series with each shunt field no 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 —

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 fore end 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, are the generators protected from mechanical injury and damage from water, steam or oil Yes, are the prime movers and their respective generators

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 fore end 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 the fittings as per Rule regarding spacing or shielding of live parts Yes, 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 micanite 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 Yes, No *See Q. 104/352*, are all screws and nuts securing connections effectively locked Yes, are any fuses fitted on the live side of

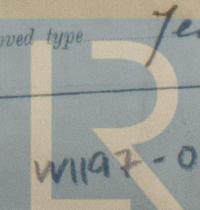
switches Yes, No Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches DP Switch + fuses on dynamos. 5P. Cos. + 10P fuses on each outgoing circuit

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 2 ammeters 2

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 Elamps coupled to E through SP 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



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All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

SELL & ISHERWOOD, LTD.
PER *Yermeader*

Electrical Engineers.

Date *2nd April 1935*

COMPASSES.

Distance between electric generators or motors and standard compass

To feet.

Distance between electric generators or motors and steering compass

64 feet.

The nearest cables to the compasses are as follows :—

A cable carrying *4* Ampères on the *feet from standard compass* *6* feet from steering compass.

A cable carrying *4* Ampères *6* 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*

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 *11°* degrees on *all* course in the case of the standard compass, and *.....* degrees on *all* course in the case of the steering compass.

WILLIAM DOXFORD & SONS, Limited,

R. Harrold Managing Director. Builder's Signature. Date *20 March 1935*

Is this installation a duplicate of a previous case *yes*. If so, state name of vessel *M.V. "Sutherland"*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The above instⁿ has been fitted out under special survey. The materials + workmanship good. On completion the instⁿ was tested under working condition & found to be satisfactory. Insulation resistance good. This vessel is eligible in my opinion for notation D.F.*

Note d

L.L.
8/4/35.

Total Capacity of Generators *25.* Kilowatts.

The amount of Fee ... £ *20. -* When applied for, *1 APR 1935*
Travelling Expenses (if any) £ *8.4.35* When received, *7/4*

W.T. Badget
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 8 APR 1935

Assigned

cc J E Mackay