

REPORT ON ELECTRICAL EQUIPMENT

[OTHER THAN FOR THE PROPULSION OF THE VESSEL]

Received at London Office

27 JAN 1951

Writing Report 8. 12. 1950 When handed in at Local Office 19 Port of Adelaide

Survey held at Pt. Adelaide Date: First Survey 1. Aug Last Survey 24 Nov 1950
(Number of Visits 12)

on the m.v. RANSDORP Tons { Gross 469 Net 189

at Amsterdam By whom built n.v. Nederl. Dok Maats. and No. - When built 1934

rs Commonwealth of Aust. Port belonging to Sydney.

ical Installation fitted by Overhauled & modified by Russel's London 1950 Contract No. - When fitted 1934 1950

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 Dwg. attached System of Distribution 2 wire D.C. Voltage of supply for Lighting 110

110 Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current, state frequency - Prime Movers

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

ch as per Rule - Generators, are they compound wound yes, are they level compounded under working conditions yes

omound wound, state distance between generators - and from switchboard - Where more than one generator is fitted, are they

to run in parallel yes, are shunt field regulators provided yes Is the compound winding connected to the negative or positive pole

neg. Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing - Have certificates of

achines under 100 kw. been supplied - and the results found as per rule - Are the lubricating arrangements and the construction

enerators as per rule yes Position of Generators aft end of E.R. each side

is the ventilation in way of generators satisfactory yes, are they clear of inflammable material yes, if situated

protected combustible material, state distance from same horizontally - and vertically - are the generators protected from mechanical

nd damage from water, steam and oil yes, are the bedplates and frames earthed yes and the prime movers and generators in metallic

yes Switchboards, where are main switchboards placed athwartships at aft end of E.R.

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

yes, if situated near unprotected combustible material, state distance from same horizontally - and vertically - what insulation

is used for the panels Laminox, if of synthetic material is it an Approved Type yes, if of

lating material (slate or marble) are all conducting parts insulated therefrom as per Rule - Is the frame effectually earthed yes

onstruction as per Rule yes, including accessibility of parts yes, absence of fuses on the back of the board yes, individual fuses

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 arrangements of equaliser switches.

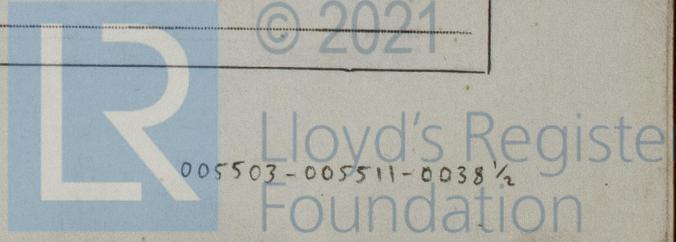
300 amp. 3 pole switches with overload & reverse current cut outs.

each outgoing circuit D.P. knife switches

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

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

connection. yes Earth Testing, state means provided Lamps.



Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an approved type yes, are all fuses labelled as per Rule yes, are the reversed current protection devices connected on the pole opposite to the equaliser connection yes, have they been tested under working conditions yes. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule yes except now light switch board on hand

Cables, are they insulated and protected as per the appropriate Tables of the Rules ✓, if otherwise than as per Rule, are they of an approved type ✓. state maximum fall of pressure between bus bars and any point under maximum load ✓, 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 exposed ends no with insulating compound ✓ or waterproof insulating tape ✓. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage yes, are cables laid under machines or floorplates no, if so, are they adequately protected ✓. Are cables in machinery spaces, galleys, laundries, etc., lead covered yes or run in conduit ✓. State how the cables are supported and protected clipped to bulkheads, screens etc.

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 pass through beams, etc., are the holes effectually bushed yes and with what material Lead. Alternative Lighting, are the

groups of lights in the engine and boiler rooms arranged as per Rule yes. Emergency Supply, state position Paraffin Lamps and method of control ✓

Navigation Lamps, are they separately wired yes controlled by separate double pole switches ✓ and fuses ✓. Are the switches and fuses in a position accessible only to the officers on watch ✓, is a

New board for navigation lamps in hand, similar to that fitted on "Belook - Belar"

automatic indicator fitted ✓. 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. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present no, if so, how are they protected ✓

and where are the controlling switches fitted ✓ are all fittings suitably ventilated ✓

are all fittings and accessories constructed and installed as per Rule ✓. Flood Lights, Searchlight Lamps, No. of 2, whether fixed or portable fixed, are their fittings as per Rule yes. Heating and Cooking, is the general construction as per Rule yes

are the frames effectually earthed yes, are beaters in the accommodation of the convection type yes. Motors, are all motors constructed and installed as per Rule yes and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from wa-

steam and oil yes, 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 none. Have certificates of test for motors with 100 BHP intended for essential services been supplied and the results found as per Rule ✓. Control Gear and Resistances, are they constructed

fitted as per Rule yes. Lightning Conductors, where required are they fitted as per Rule yes. Ships carrying Oil having a Flash Point 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 no

are they of an approved type yes. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameless type ✓. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule yes, are they suitably stored in

situations yes. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory yes

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Amperes	Revs. per Min.		Fuel Used	Flash Point of Fuel
MAIN	2	30ca	110	272	1200	Diesel Engines	Diesoline	
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			
MAIN GENERATOR	30	1	61 / 0.93	288		42'	Rubber	In steel trough
" " EQUALISER			0.4					
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION	KILOWATTS	CONDUCTORS	MAXIMUM CURRENT	APPROX. LENGTH	INSULATED WITH	HOW PROTECTED
AUX. SWITCHBOARDS AND SECTION BOARDS						
Navigation						

LIGHTING AND HEATING, ETC., CABLES

DESCRIPTION	KILOWATTS	CONDUCTORS	MAXIMUM CURRENT	APPROX. LENGTH	INSULATED WITH	HOW PROTECTED
WIRELESS			7/036			
NAVIGATION LIGHTS			7/029		Rubber	Lead covered
LIGHTING AND HEATING			19/069		"	"
			7/036		"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.	CONDUCTORS	MAXIMUM CURRENT	APPROX. LENGTH	INSULATED WITH	HOW PROTECTED
General Service Pump	1	5.5	7/036				

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.

Compass adjustment carried out by Commonwealth Dept. of Navigation

Minimum distance between electric generators or motors and standard compass 45'

Minimum distance between electric generators or motors and steering compass 45'

The nearest cables to the compasses are as follows:—

A cable carrying Radio Amperes 4 feet from standard compass 6 feet from steering compass.

A cable carrying 1/2 Amperes 2'6" feet from standard compass feet from steering compass.

A cable carrying 2 Amperes ✓ feet from standard compass 6 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 case of 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 No If so, state name of vessel ✓

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

This vessel, built in 1934, was built under Bureau Veritas Rules to carry sulphuric acid in bulk between north continental ports. She has been taken over by the Australian Commonwealth as reparations and is now in service between Adelaide & Tasmania. Before leaving London the electrical equipment was thoroughly overhauled by Russel's, a new main switchboard and two new Ruston generator sets being installed. At this time all switchboards, circuits, etc. have been examined as far as practicable & found to comply with requirements, except that lightning conductors have been fitted to the wood pole masts and the navigation light switchboard, having screw-in porcelain fuses is being replaced by one with approved fuses, patterned on the type fitted in ss. Balook & Belarr.

In my opinion the electrical installation has been well carried out & is in good order and eligible for classification.

Total Capacity of Generators 60 Kilowatts.

The amount of Fee £	30 : 0 :	When applied for, <u>11.12.1950</u>
Travelling Expenses (if any) £	: :	

G. E. Hall
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 23 NOV 1951

Assigned See F.F. Moly. rpt.

205/48-J. & O.S.—TRANSFER. (PRINTED IN AUSTRALIA)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)