

12 JAN 1943

Rpt. 13.

No. 33576

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report... 6-1-1943 When handed in at Local Office... 11 JAN 1943 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 30-11-42 Last Survey 30-12-1942  
Reg. Book. (Number of Visits... 5)

88545 on the S/S. "STANLODGE" Tons { Gross 5976.50  
Net 4048.73

Built at Sunderland By whom built Wm. Lindsay & Sons Yard No. 256 When built 1942

Owners Stanhope Steamship Co. Port belonging to London

Electrical Installation fitted by Miss Campbell & Sherwood Ltd Contract No. 256 When fitted 1942

Is vessel fitted for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. No Sub.Sig. No

Have plans been submitted and approved Yes System of Distribution Two-Wire insulated Voltage of supply for Lighting 110

Heating — Power 110 Direct or Alternating Current, Lighting Yes Power Yes 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

None fitted 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 Yes Received 3/1/43 and the results found as per rule Yes Are the lubricating arrangements and the construction

of the generators as per rule Yes Position of Generators engine room floor level on blocks, starboard of

main engine, 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 on Angle frame adjacent to main

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 "Sindampo", if of synthetic insulating material is it an Approved Type Yes, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule — 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 a double-pole

air-break circuit-breaker with 2-ohm and time-lag tripping devices

and for each outgoing circuit a double-pole double-throw quick break knife switch and a

double-pole fuse

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

ammeters Two 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 E lamps connected to E through fuses & fuses

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 If circuit breakers are provided for the generators, at what overload current did they open when tested 150A, are the reversed current

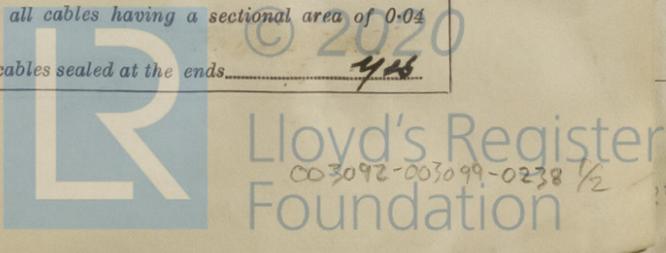
protection devices connected on the pole opposite to the equaliser connection —, have they been tested under working conditions, and at what current

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 Yes, 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 has been 4.4V, 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 Yes



with insulating compound — or waterproof insulating tape yes. 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 — or run in conduit yes. State how the cables are supported and protected all cables V.I.R. insulated in machinery spaces, in air ducts, from cables the cables drawn into heavy gauge slotted conduit fastened to the surface. In accommodation lead covered cables clipped to surface and protected where necessary.

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 effectively 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 — and method of control —.

Navigation Lamps, are they separately wired yes controlled by separate double pole switches yes and fuses yes. Are the switches and fuses in a position accessible only to the officers on watch yes, is an automatic indicator fitted yes. Secondary Batteries, are they constructed and fitted as per Rule —, are they adequately ventilated — what is the battery capacity in ampere hours —.

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 yes, are all fittings and accessories constructed and installed as per Rule yes. Searchlight Lamps, No. of none fitted, whether fixed or portable —, are their fittings as per Rule —. Heating and Cooking, is the general construction as per Rule —, are the frames effectually earthed —, are heaters in the accommodation of the convection type —. 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 water, steam and oil yes, if situated near unprotected combustible material state minimum distance from same horizontally — and vertically —. Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment none fitted.

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing none fitted. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule —. Control Gear and Resistances, are they constructed and fitted as per Rule yes. Lightning Conductors, where required are they fitted as per Rule none fitted. 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 — are they of an approved type —. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships —. Are the cables lead covered as per Rule —. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule yes, are they suitably stored in dry situations yes. Insulation Tests, has the insulation resistance of all circuits and apparatus been 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.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	15	110	136	600	Single Cylinder Vertical Steam Engines		
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.				
				In the Circuit.	Rule.			
MAIN GENERATOR	15	1	19/083	136	191	45	V.C.	L.C.T.B.
" " EQUALIZER	15	1	19/083	136	191	50	V.C.	L.C.T.B.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	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.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
Midship Deck Board "C"	1	19/064	45	83	325	V.I.R.	H. G. Armoured Conduit
Port Lighting D.B.	1	7/044	10	31	250	"	"

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7/044	15	31	350	V.I.R.	H. G. Armoured Conduit
NAVIGATION LIGHTS	1	7/044	5	31	350	"	"
LIGHTING AND HEATING	(alternatives fed from Mid Deck Board to Lav. Indicator)						
Engine Room Lighting D.B.	1	7/044	20	31	100	V.I.R.	H. G. Armoured Conduit
Engine Room Lighting D.B.	1	7/044	25	31	25	"	"
Blacksmiths Store D.B. "C-1"	1	7/086	6	24	50	"	"
Officers' Mess D.B. "C-2"	1	7/086	6	24	20	"	"
D.G. Supply.	1	19/083	82	191	40	V.C.	L.C.T.B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	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.			
Refrigerating Motor	1	1	1	7/044	10	31	300	V.I.R.	H. G. Armoured Conduit

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.

CAMPBELL & ISHERWOOD, LTD.

*Handwritten signature*

Electrical Engineers.

Date 25 Jan 1943

COMPASSES.

Minimum distance between electric generators or motors and standard compass 175'

Minimum distance between electric generators or motors and steering compass 168'

The nearest cables to the compasses are as follows:—

A cable carrying .14 Ampères 7 feet from standard compass on the feet from steering compass.

A cable carrying .14 Ampères on the feet from standard compass 7 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 every course in the case of the standard compass, and nil degrees on every course in the case of the steering compass.

ROD W. PICKERSGILL & SONS, LIMITED

*Handwritten signature*

Builder's Signature.

Date 11-1-43

Is this installation a duplicate of a previous case yes If so, state name of vessel s/s. "Stangarth"

Plans. Are approved plans forwarded herewith no If not, state date of approval 24-11-41

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith no Received 3/2/43

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

*The electrical equipment of this vessel has been installed under special survey in accordance with the approved plans, specifications and amendments thereto. The materials used are of good quality and design & the workmanship is good. The installation complies in general with the 1939-1940 "Rules for Electrical Equipment". Upon completion the equipment was operated under load with satisfactory results, and the insulation resistance of each circuit was measured and found good. This equipment is in my opinion suitable for a classed vessel.*

*Noted*

*L.Y.*

*15-11-43*

Total Capacity of Generators (2x16) 32 Kilowatts.

The amount of Fee ... £22.10.0. When applied for, 5 Jan. 1943

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

Surveyor to Lloyd's Register of Shipping.

*Handwritten signature*

JAN 22 1943

Committee's Minute \_\_\_\_\_

Assigned See Sld. No. 33576

5m, 4.39.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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