

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 23 SEP 1947

Date of writing Report 24th July 1947 When handed in at Local Office 24 JUL 1947 Port of London

No. in Survey held at Brightlingsea Date, First Survey Last Survey 11th July 1947
Reg. Book. (Number of Visits.....)

on the M.V. "POLST JARNAN" Ex. M.M.S. 1006 Tons {Gross.....
Net.....

Built at Ipswich By whom built E.A. Constructors Ltd Yard No. 1006 When built 25-3-43

Owners Njall Sunnlaugsson Port belonging to Dalvik

Electrical Installation fitted by Rfit - Miss Munn System & Co Ipswich Contract No. — When fitted 7-1947

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

Have plans been submitted and approved Yes System of Distribution 2 Pole insulated Voltage of supply for Lighting 220

Heating 220 Power 220 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state frequency — Prime Movers,

has the governing been tested and found efficient when the whole 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

Positive Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing No Have certificates of

test for machines under 100 kw. been supplied — and the results found as per rule — Are the lubricating arrangements and the construction

of the generators as per rule Yes Position of Generators Port and Starboard side Engine Room on

raised platform, 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 Port side Engine Room on

raised platform

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 Sydnonyo & Perolin, 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 45 KW Generator -

300 ampere double pole circuit breaker with overload protection.

25 KW Generator - 200 ampere double pole change over switch and fuses.

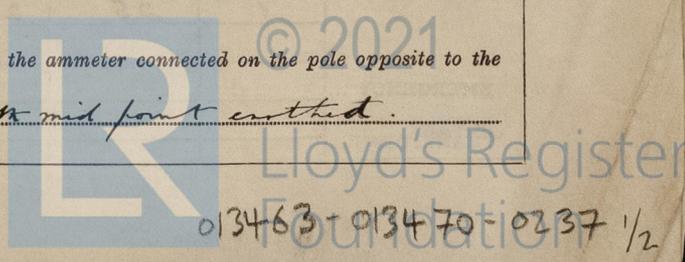
and for each outgoing circuit 60 and 30 ampere double pole quick make and break

Adm. Pat. knife switches with double pole Adm. Pat. cartridge fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 200

ammeters 200 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 20 lamps in series with mid point earthed



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Adm Patti

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 —, have they been tested under working conditions —. 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 less than 6%, 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 — 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 Lead covered clipped to perforated metal tray and bulkhead and deckhead as required. Are all lead sheaths, armoring 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 —. Secondary Batteries, are they constructed and fitted as per Rule Yes, are they adequately ventilated Yes. 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. Flood Searchlight Lamps, No. of Two, 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 heaters in the accommodation of the convection type No. 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 —. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing —. 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 —. 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 —. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type —. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule No, are they suitably stored in dry situations —. 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.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	1	45	220	205	1800	Gardner Diesel engine.	Above 150° F	
	1	25	220	115	1000	Slide "	" "	
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 N° 1 ...	45	1	0.2	156	184	36	V.I.R.	Lead covered clipped
" " EQUALISER N° 2 ...	25	1	0.2	115	184	66	" "	to metal tray and bulkhead as required
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR ...								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS ...								
Section B/E Engine Room.	1	0.0225	12	46	4	V.I.R.	Lead covered clipped	
D/B D.1. Fore-ole.	1	0.0045	3	15	120	" "	to metal tray and bulkhead as required	
D/B D.2. Engine Room.	1	0.0045	4	15	4	" "	bulkhead as required	
D/B D.3. Ward Room Lobby	1	0.0045	5	15	50	" "	required	
D/B D.4. Stbd Alley	1	0.04	37	64	70	" "	" "	
D/B D.5. Fore Alley	1	0.01	29	31	40	" "	" "	

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS ...								
NAVIGATION LIGHTS ...	1	0.003	1.5	10	60	V.I.R.	Lead covered clipped	
LIGHTING AND HEATING								
Ventilation Fore B/E Engine Room.	1	0.01	8.3	31	16	" "	required	
Galley Cooper.	1	0.0225	30	46	40	" "	" "	
Flood Lights (2)	1	0.0045	1.5	15	65	" "	" "	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Anchor Windlass	1	5	1	0.0225	21	46	160	V.I.R. Lead covered run in conduit and clipped to metal tray and bulkhead as required.
Steering gear motor	1	2	1	0.0045	9	15	80	" "
Ventilation Fans: 7 1/2"	1	0.5	1	0.002	2.5	5	16	" "

Installation till possible connected load 156 amperes.

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.

Minimum distance between electric generators or motors and standard compass.....

Minimum distance between electric generators or motors and steering compass.....

The nearest cables to the compasses are as follows:-

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass 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.....

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..... If so, state name of vessel.....

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

The electrical equipment was originally installed in accordance with Admiralty specification and has now been partly revised and fitted out in conformity with approved plans and the Society's Rules for Electrical Equipment.

Insulation tests have been made on the modified equipment and it has been examined and tested under working conditions and found satisfactory.

In my opinion the installation is such as could be accepted for Classification with the Society, subject to spare gear in accordance with Section 22 of the Electrical Rules being placed on board, if the vessel is intended for open sea service.

Total Capacity of Generators..... 70 Kilowatts.

The amount of Fee £ 6 : - : When applied for, 23 SEP 1947

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

Noted
 14.11.47
 J.H. Jickell
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....

Assigned..... See F.E. wcky. rpt.

2m.10.38.—Transfer. (MADE IN ENGLAND.) (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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