

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 4 NOV 1941
Received at London Office

Date of writing Report 2 Sept 41 When handed in at Local Office 6 Sept 41 Port of Philadelphia

No. in Survey held at Lechester Pa Date, First Survey 10 June Last Survey 9 Aug 1941
Reg. Book. on the S/S STANVAC WELLINGTON (Number of Visits 6)

Built at Lechester Pa By whom built Sm FB & DD Co Yard No. 210 Tons {Gross 10013 Net 6397} When built 1941

Owners Petroleum Shipping Co Port belonging to Panama

Electric Light Installation fitted by Sm FB & DD Co Contract No. 210 When fitted 1941

System of Distribution Two wire mains Two wire branches

Pressure of supply for Lighting 110 volts, Heating - volts, Power 230 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 rating? Yes, are they compound wound? Yes, are they over compounded 5 per cent? Yes, if not compound wound state distance between each generator? Yes

Where more than one generator is fitted are they arranged to run in parallel? Yes, is an adjustable regulating resistance fitted in series with each shunt field? 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

Position of Generators Are the lubricating arrangements of the generators as per Rule? Yes, are they clear of all inflammable material? Yes, is the ventilation in way of the generators satisfactory? Yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators? Yes, 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 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? On same flat as generators

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? Yes

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? Yes

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, 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

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, proportion of omnibus bars? Yes, individual fuses to voltmeter, pilot or earth lamp? Yes, connections of switches? Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches. 1600 amp 3 pole

A. C. B. 1600 3 pole line switch (non fused)

Instruments on main switchboard 5 ammeters 4 voltmeters synchronising device for paralleling purposes.

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

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules? Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule? Yes

Cables: Single, twin, concentric, or multicore all are the cables insulated and protected as per Tables IV or V of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5%

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Yes

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound Yes

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage Yes

Support and Protection of Cables, state how the cables are supported and protected By straps spaced 14" horizontally & 18 vertically.

If cables are run in wood casings, are the casings and caps secured by screws None, are the cap screws of brass Yes are the cables run in separate grooves Yes If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII Yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements Yes

Joints in Cables, state if any, and how made, insulated, and protected None

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed Yes state the material of which the bushes are made Lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas Yes are their connections made as per Rule Yes

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule Yes

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven None

Navigation Lamps, are these separately wired Yes, controlled by separate switch and separate fuses Yes, are the fuses double pole Yes are the switches and fuses grouped in a position accessible only to the officers on watch Yes has each navigation lamp an automatic indicator as per Rule Yes

Secondary Batteries, are they constructed and fitted as per Rule None

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and where exposed to drip or condensed moisture, watertight Yes are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected Yes

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected None how are the cables led Yes

where are the controlling switches situated Yes

Searchlight Lamps, No. of 1, whether fixed or portable Fixed, are their fittings as per Rule Yes

Arc Lamps, other than searchlight lamps, No. of None, are their live parts insulated from the frame or case Yes, are their fittings as per Rule Yes

Motors, are their working parts readily accessible Yes, are the coils self-contained and readily removable for replacement Yes are the brushes, brush holders, terminals and lubricating arrangements as per Rule Yes are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material Yes

are they protected from mechanical injury and damage from water, steam or oil Yes are their axes of rotation fore and aft Yes

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated forced draught, drip or flame proof type but not self ventilated, if not of this type, state distance of the combustible material horizontally or vertically above the motors Yes and Yes

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule Yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule Yes

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings Yes

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office None



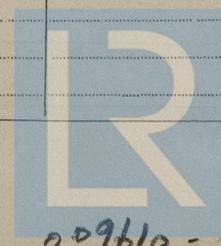
CARGO LIGHTS

ARC LAMPS

HEATERS

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors. <i>Units</i>	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. <i>am. amp.</i>	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	Galley Power Panel								
	BALLAST PUMP		15.00	37	0.22	191.9	150	Varnish & Canvas	Lead & armoured
	Messing Power Panel		0.400	19	0.52	9.4	500	" "	"
	MAIN BILGE LINE PUMPS		0.225	7	0.64	38.4	100	" "	"
	Machine shop Power Panel								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	Electric range								
	SANITARY PUMP	1	0.750	19	0.72	97	20	" "	"
	Stock Kettle								
	CIRC. SEA WATER PUMPS	1	0.100	7	0.44	22	30	" "	"
	Water urns								
	CIRC. FRESH WATER PUMPS	2	0.100	7	0.44	22	60	" "	"
	Coffee urn								
	AIR COMPRESSOR	1	0.070	7	0.36	13	60	" "	"
	Refrigerator								
	FRESH WATER PUMP	2	0.030	1	0.64	1.2	60	Rubber	"
	Food warmer								
	ENGINE TURNING GEAR	1	0.07	7	0.36	8.7	50	Varnish	"
	Exhaust blowers								
	ENGINE REVERSING GEAR	2	0.030	1	0.64	1.0	40	Rubber	"
	Water heater								
	LUBRICATING OIL PUMPS	1	0.100	7	0.44	27	40	Varnish	"
	OIL FUEL TRANSFER PUMP								
	Drinking water pump	1	0.030	1	0.64	2.4	50	Rubber	"
	WINDLASS								
	Refrigerator	1	0.030	1	0.64	1.2	20	" "	"
	WINCHES, FORWARD								
	Port supply fan	1	0.07	7	0.36	5.8	40	Varnish	"
	WINCHES, AFT								
	SPINNING GEAR—								
	Shell press								
	(a) MOTOR GENERATOR	1	0.030	1	0.64	4.6	60	Rubber	"
	(b) MAIN MOTOR	1	0.07	7	0.36	12.6	50	Varnish	"
	WORKSHOP MOTOR	1	0.07	7	0.36	12.6	40	" "	"
	VENILATING FANS	1	0.07	7	0.36	8.6	60	" "	"



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Lloyd's Register
Foundation

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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	300	260	1565	1200	Steam turbine		
AUXILIARY ...	1	50	260	260	1200	" "		
EMERGENCY ...								
ROTARY TRANSFORMER	2	25	110	260	1750	Compound wound motor		

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	2.0752	254	.103	1165	50	Varnish & Cambic	Leaded & armoured
	EQUALISER CONNECTIONS ...	1	1.0375	127	.103	932	50	"	"
	AUXILIARY GENERATOR	1	.1964	37	.083	260	70	"	"
	EMERGENCY GENERATOR ^{Motor}	1	.200	37	.083	184	70	"	"
	ROTARY TRANSFORMER ^{Gen.}	1	.200	37	.083	260	70	"	"
	AUXILIARY SWITCHBOARDS ...								
	ENGINE ROOM ...	1	.0600	19	.064	80	40	"	"
	BOILER ROOM ...	1	.0400	19	.052	75	80	"	"
	ACCOMMODATION ^{Midship}	1	.075	19	.072	100	500	"	"
	Aft quarters poop	1	.0400	19	.052	75	100	"	"
	" " upper deck	1	.0400	19	.052	75	180	"	"
	Probs combustion control	1	.007	7	.026	10	70	"	"
	Gyro compass	1	.0145	7	.052	15	575	"	"
	Fachometer	1	.0225	7	.064	20	575	"	"
	Shore line	1	.075	19	.072	100	120	"	"
	"	1	.250	37	.093	200	120	"	"
	WIRELESS ...	1	.0225	7	.064	20	480	"	"
	SEARCHLIGHT ...								
	MASTHEAD LIGHT...								
	SIDE LIGHTS ...	1	.007	7	.076	2	580	"	"
	COMPASS LIGHTS ...								
	POOP LIGHTS ...								
	CARGO LIGHTS ...								
	ARC LAMPS ...								
	HEATERS ^{Water} ...	1	.0145	7	.052	27	180	"	"

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. *m. amp.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP ^{Engine room}	1	.0145	7	.052	39	130	Varnish Cambic	Leaded & armoured
	MAIN BILGE LINE PUMPS ^{Fire pumps}	1	.250	37	.093	294	100	"	"
	GENERAL SERVICE PUMP ^{Main Condensate}	2	.0145	7	.052	39	90	"	"
	EMERGENCY BILGE PUMP	1	.0145	7	.052	30	90	"	"
	SANITARY PUMP ...	1	.0145	7	.052	30	90	"	"
	MAIN CONDENSATE CIRC. SEA WATER PUMPS ^{circ}	1	.250	37	.093	275	110	"	"
	MAIN CONDENSATE CIRC. FRESH WATER PUMPS ^{circ}	1	.040	19	.052	58	75	"	"
	AIR COMPRESSOR ...	1	.040	19	.052	18	110	"	"
	FRESH WATER PUMP ...	1	.0030	1	.064	2.4	130	Rubber cambic	"
	ENGINE TURNING GEAR ^{salt water service}	1	.0145	7	.052	39	80	Varnish	"
	ENGINE REVERSING GEAR	1	.0145	7	.052	30	160	"	"
	LUBRICATING OIL PUMPS	2	.040	19	.052	58	170	"	"
	OIL FUEL TRANSFER PUMP	1	.15	37	.072	147	65	"	"
	" " ^{Service} ...	2	.0145	7	.052	25.2	165	"	"
	WINDLASS ^{Force of shaft}	2	.075	19	.072	94	120	"	"
	WINCHES, FORWARD ^{Cargo oil pumps}	3	1.1781	91	.1284	700	70	"	"
	WINCHES, AFT ^{Drain receiver pump}	1	.007	7	.026	12.6	100	"	"
	STEERING GEAR ^{Cargo shipping}	2	.200	37	.083	220	65	"	"
	(d) MOTOR GENERATOR	2	.1478	37	.072	95	195	"	"
	(p) MAIN MOTORS ^{Drain receiver pump}	2	.1478	37	.072	95	195	"	"
	WORKSHOP MOTOR	1	.0032	1	.064	8.6	165	Rubber	"
	VENTILATING FANS ^{off. g. h.}	2	.007	7	.076	4.6	55	Varnish	"
	Boiler room	1	.007	7	.036	4.6	160	"	"
	Pump room	1	.007	7	.036	6.6	65	"	"
	Generator flat	1	.0030	1	.064	1.2	25	Rubber	"
	Main condensate pump	1	.0145	7	.052	30	60	Varnish	"
	Well drain pump	1	.0030	1	.064	6.6	40	Rubber	"
	Wash water	1	.0030	1	.064	4.6	130	"	"
	Ice machine	1	.0145	7	.052	30	170	Varnish	"

All Conductors are of annealed copper conforming to British Standard Specification No. 7.
 The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.

T. M. Jackson, Electrical Engineers. Date Sept 2 - 41
 for Sun Shipbuilding & Dry Dock Co.

COMPASSES.

Distance between electric generators or motors and standard compass 10'
 Distance between electric generators or motors and steering compass 10'

The nearest cables to the compasses are as follows:—

A cable carrying 6.6 Ampères 10 feet from standard compass 10 feet from steering compass.

A cable carrying 1.5 Ampères 10 feet from standard compass 10 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 0° degrees on 360° course in the case of the standard compass, and 0° degrees on 360° course in the case of the steering compass.

T. M. Jackson, Builder's Signature. Date Sept 2 - 41
 for Sun Shipbuilding & Dry Dock Co.

Is this installation a duplicate of a previous case? Yes If so, state name of vessel STANYAC MELBOURNE

General Remarks (State quality of workmanship, opinions as to class, &c. This installation has been fitted under Special Survey, and in accordance with the approved plans. The workmanship & materials are good. The installation has been tried out under full power & found satisfactory.

Noted
 7/11/41

Total Capacity of Generators 650 Kilowatts.

The amount of Fee ... \$ 743 25 : When applied for, 18th Sept. 1941
 Travelling Expenses (if any) £ 6 00 : When received, 19.....

W. W. Tunham
 Surveyor to Lloyd's Register of Shipping.

NEW YORK OCT 1 1941
 Committee's Minute

Assigned Elec. light.

Im. 1.20.—Transfer. (The Surveyors are requested not to write on or back to the space for Committee's Minute.)