

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... MAR 5 1940

Date of writing Report... 29th Jan. 1940 When handed in at Local Office... 29th Jan. 1940 Port of... Hongkong

No. in Survey held at... Hongkong Date, First Survey... Dec. 19th 1939 Last Survey... 27th Jan. 1940
Reg. Book. (Number of Visits... 7)

on the... Tug "TROYADOR" Tons {Gross... 79.00 Net... 11.02

Built at... Hongkong By whom built... The H K Whampoa Dock Co. Yard No... 828 When built... 1940

Owners... Visayan Stevedore Transportation Co. Inc. Port belonging to... Iloilo, P.I.

Electrical Installation fitted by... The H K Whampoa Dock Co. Ltd Contract No... When fitted... 1940

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... D.C. Two Wires Voltage of supply for Lighting... 125

Heating... Power... 125 Direct or Alternating Current, Lighting... Direct Power... Direct 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... Yes 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... Have certificates of

test for machines under 100 kw. been supplied... No, See note and the results found as per rule... Are the lubricating arrangements and the construction

of the generators as per rule... Yes Position of Generators... 1 Port + 1 Star in engine room

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 of engine room

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... E. Long Sindanga, if of synthetic insulating material is it an Approved Type... 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... 60 amps double pole

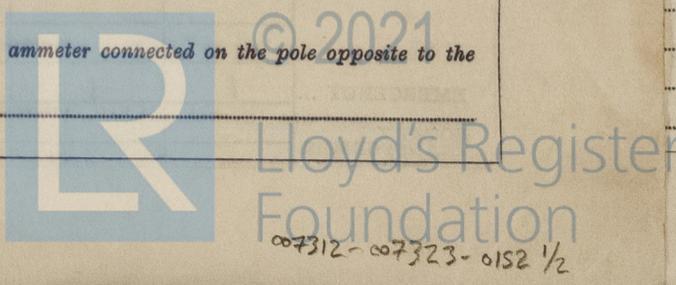
double throw switch.

and for each outgoing circuit... 4-D.P. 15 amps rotary switch + one 60 amps D.P. switch.

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

ammeters... one 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... Earth 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 ✓, 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 5 Volts, 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 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 yes or run in conduit ✓.

State how the cables are supported and protected Cables run on metal plating + secured by clips, where necessary cables are protected by galvanized sheet iron.

Are all lead sheaths, armouring and conduits effectually bonded and earthed yes. Refrigerated chambers, are the cables and fittings as per Rule None.

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 bushes.

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 no.

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 yes, are all fittings and accessories constructed and installed as per Rule yes. Searchlight Lamps, No. of ✓, 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 ✓. 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 no. 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 over 150° F.

are all fuses of the cartridge type yes, 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 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.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	1	5	125	40	1750	15-H.P. oil engine	Diesel oil	above 150° F.
EMERGENCY ...	1	1	125	8	2150	By belt from main engine		
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 ...	5	1	0.0225 ^{sq}	40	75	40'	V.C.	LC + armoured
" " EQUALISER ...								
EMERGENCY GENERATOR ...	1	1	0.0045 ^{sq}	8	18.2	40'	V.I.R.	LC + armoured
ROTARY TRANSFORMER: MOTOR ...								
" " GENERATOR ...								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
AUX. SWITCHBOARDS AND SECTION BOARDS ...						
Accommodation	1	0.003 ^{sq}	4.5	12.9	50'	V.I.R. L.C.
Engine Room	1	0.003 ^{sq}	4.0	12.9	20'	" LC + armoured
Navigation Circuit	1	0.003 ^{sq}	2.8	12.9	100'	" LC.

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.	
WIRELESS ...		1	0.003 ^{sq}	4.0	12.9	20'	V.I.R. L.C.
NAVIGATION LIGHTS ...		each	0.003 ^{sq}	0.3	12.9	20' 100'	V.I.R. LC + armoured
LIGHTING AND HEATING ...					150'		

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.	
G.S. Pump Motor	1	5	1	0.01 ^{sq}	30	42	40	V.C. LC + armoured
Wireless Motor	1	SHW	1	0.003 ^{sq}	4	12.9	20	V.I.R. L.C.

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.

HONGKONG & WHAMPOA DOCK Co., Ltd.

Hood
 CHIEF MANAGER

Electrical Engineers.

Date *29th Jan 1940*

COMPASSES.

Minimum distance between electric generators or motors and standard compass

Minimum distance between electric generators or motors and steering compass *36 ft.*

The nearest cables to the compasses are as follows:—

A cable carrying *0.9* Ampères feet from standard compass *Compass Light* feet from steering compass.

A cable carrying *36* Ampères 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 *Nil* degrees on course in the case of the standard compass, and *Nil* degrees on *any* course in the case of the steering compass.

HONGKONG & WHAMPOA DOCK Co., Ltd.

Hood
 CHIEF MANAGER

Builder's Signature.

Date *29th Jan 1940*

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 electrical*

machinery was previously fitted on a wood launch in Manila + no makers test certificates for Generators + Motors are available (See H/L Letter dated 21st June 1939 + London letter dated 1st July 1939)

The installation has been efficiently fitted on board in accordance with the Rules + approved plans + the materials + workmanship are good.

On completion the installation was megger tested + tried under full load conditions + found satisfactory.

No spare gear supplied, but owner's Representative stated that spare gear to rule requirements are in Manila + will be supplied on vessel's arrival there. The Manila Surveyor has been notified.

*Noted
 L.Y.
 7/3/40.*

Total Capacity of Generators *6* Kilowatts.

The amount of Fee ... *£6 = \$: 97.00* When applied for, *27th Jan 1940*

Travelling Expenses (if any) *\$: 20.00* When received, *2/3/40*
 Total *\$: 117.00* *(per wire recd 2/3/40)*

J.S. Morrison
 Surveyor to Lloyd's Register of Shipping.

FRI. 8 MAR 1940

Committee's Minute

Assigned *Mr H.G. J.E. P 521*

2m1038.—Transfer. (MADE IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)