

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 22nd Feb., 1959. When handed in at Local Office 3rd Mar., 1959. Port of SHIMONOS EKI.

No. in Survey held at Kudamatsu, Japan Date, First Survey 10-1-1959 Last Survey 8-2-1959
Reg. Book. (No. of Visits 5)

Tons { Gross 3366.79
Net 1871.70

on the M.V. "NARRA"
Built at Kudamatsu, Japan By whom built Kasado Dockyard Co., Ltd. Yard No. 203 When built 2-1959

Owners PHILIPPINE ACE LINES, INC. Port belonging to Manila

Installation fitted by Kasado Dockyard Co., Ltd., Kudamatsu When fitted 2-1959

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

Plans, have they been submitted and approved Yes System of Distribution 3 phase, 3 wire. Voltage of Lighting 115

Heating Power 230 D.C. or A.C., Lighting A.C. Power A.C. If A.C. state frequency 60

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted with a trip switch - Generators, are they compound wound - and level compounded under working conditions -

Are the generators arranged to run in parallel Yes Is the compound winding connected to the negative or positive pole -

Have machines 100 kw. and over 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 Yes Position of Generators Port & Starboard on main engine starting floor.

Is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil Yes Switchboards, where are main switchboards placed at forward and on main engine starting floor.

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil Yes, what insulation is used for the panels Phenolic Resin Bonded & ebonite, 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 construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches A triple pole linked air circuit breaker with an instantaneous overcurrent trip in each phase, overcurrent relays in two phases, a reverse power relay and a triple pole linked isolating switch fitted, neutral insulated from earth.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit A triple pole linked air circuit breaker with an over current trip on each insulated pole fitted. Breaker of "De-ion" type made by Terasaki Denki Seisakusho, Osaka

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

A.C. ammeters 2 voltmeters 1 synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection - Earth Testing, state means provided 2 sets filament lamps for power & lighting 10 Watt Preference Tripping, state if provided Yes, and tested Yes

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes

make of fuses Kawasaki-SK type, are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate 150% (339A) 20 sec. and at what current do the reverse current protective devices operate 13% (29.4A)

Cables, are they insulated and protected as per Rule 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 all paper insulated and varnished cambric insulated cables sealed at the ends 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 any cables laid under machines or floorplates Yes, if so, are they adequately protected Yes State

type of cables (if in conduit this should also be stated) in machinery spaces TVLC, in conduit, galleys RLC

and laundries RLC State how the cables are supported or protected Cables of metal braided, armoured, secured by metal clip on coated steel hangers or galvanized perforated steel plates. Cables under upper deck covered by steel plate, ESD cable in hold protected by heavy gauged steel pipe.

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes 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 Refrigerated chambers, are the cables and fittings as per Rule Yes

Have refrigeration fan motors been constructed under survey Domestic - and test certificates supplied -

Are the motors accessible for maintenance at all times Yes



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... Yes Emergency Supply, state position None

Navigation Lamps, are they separately wired... Yes controlled by separate double pole switches 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 Is an alternative supply provided... Yes

Secondary Batteries, are they constructed, fitted and adequately ventilated as per Rule... Yes, state battery capacity in ampere hours... 2 set for General use 200 AH Where required to do so does it comply with 1948 International Convention... Yes

Lighting, is fluorescent lighting fitted... Yes If so, state nominal lamp voltage... 110 V. and compartments where lamps are fitted... Yes Dining saloon, main switch board & wireless room.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... Yes

Searchlights, No. of... whether fixed or portable... 2, are they of the carbon arc or of the filament type... Carbon arc

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 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil... Yes

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment... Yes Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing... Yes

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule... Yes

Lightning Conductors, where required are they fitted as per Rule... Yes

Ships carrying Oil having a Flash Point of less than 150° F. Have all the special requirements of the Rules for such ships been complied with... are all fuses of an Approved Cartridge Type... make of fuse... Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships... Are all cables lead covered as per Rule...

E.S.D., if fitted state maker... Kaijyo Denki K.K. location of transmitter and receiver... No.2 HOLD. Recorder in chart-room

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and 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	MAKER.	KVA RATED AT			PRIME MOVER.	
			Volts.	Amps.	Revs. per Min.	TYPE.	MAKER.
MAIN	2	Tokyo Denki Seizo K.K., Tsuchiura, Japan	90	230	226	600	Diesel Yammer Diesel Eng. Co., Ltd., Osaka, Japan
EMERGENCY ROTARY TRANSFORMER							

GENERATOR CABLES.

DESCRIPTION.	No. of	KVA	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or mm ²	In the Circuit.	Rule.			
MAIN GENERATOR	2	90	2(3C)	37/0.072	226	✓332 (450C)	No.1 46 No.2 44	V.C.	L.C.
EQUALISER									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR GENERATOR									

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	KVA	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or mm ²	In the Circuit.	Rule.	
M.S.B. to 3x7.5 KW Transformer (primary)	3	7.5	3(2C)	7/.044	19	✓29	12 V.C. L.C.
(secondary)	3	7.5	3(2C)	7/.064	38	✓51	12 V.C. L.C.
M.S.B. to shore connection Box	1	37.083	1(3C)	37/.083	200	✓200	87 V.C. L.C.

DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.).

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or mm ²	In the Circuit.	Rule.			
Power:-							
M.S.B. to ER Section							
Power DIS. Board P-1, (s. below Upper DK)	1(3C)	19/.064	41.9	✓91	25	V.C.	L.C.
" P-2, (port aft)	1(3C)	19/.052	49.3	✓70	88	V.C.	L.C.
" P-3, (behind MSB)	1(3C)	7/.064	21.5	✓51	16	V.C.	L.C.
" P-4, (p. boiler plat form)	1(3C)	19/.052	44.5	✓70	84	V.C.	L.C.
Lighting:-							
MSB to Cargo Light S.B. (For After)	1(3C)	7/.052	28	✓42	135	V.C.	L.C.
MSB to Cargo Light S.B. (For Front)	1(3C)	7/.052	33	✓42	250	V.C.	L.C.
MSB to Navigation Light Indicator	2(2C)	7/.036	1.8	✓30	112	V.C.	L.C.
MSB to Nav. Bridge Light S.B. BOX	1(3C)	7/.052	20	✓38	110	V.C.	L.C.
MSB to Engine Room Light S.B.	1(3C)	7/.052	16.5	✓38	25	V.C.	L.C.
MSB to Engine Room Light (Port Side)	1(3C)	7/.052	18	✓38	32	V.C.	L.C.
MSB to General Light S.B. (No. SL-1)	1(3C)	19/.052	55.5	✓70	82	V.C.	L.C.
" (No. SL-2)	1(3C)	7/.052	37	✓42	75	V.C.	L.C.
Communication:-							
MSB to Radio Equipment	1(3C)	7/.064	30	✓51	88	V.C.	L.C.
MSB to Gyro	1(3C)	7/.029	9	✓15	88	R.C.	L.C.
MSB to Rader, D.F., E.S.D., & Rudder Angle.	1(3C)	7/.044	10	✓22	96	R.C.	L.C.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or mm ²	In the Circuit.	Rule.	
Pumps etc.:-							
Jacket Cooling FW Pump	1	12	1(3C)	7/.052	35	✓38	32 V.C. L.C.
Cooling Sea Water Pump	1	15	1(3C)	7/.064	42	✓51	24 V.C. L.C.
F.O. Transfer Pump	1	7.5	1(3C)	19/.044	22	✓27	54 R.C. L.C.
FO & LO Stand-by Pump	1	2	1(3C)	7/.029	6.7	✓11	36 R.C. L.C.
G.S. & Fire Pump	1	25	1(3C)	19/.052	67	✓70	37 V.C. L.C.
Fresh Water Pump	2	3	1(3C)	7/.036	9.5	✓12	65 R.C. L.C.
Sanitary Pump	1	3	1(3C)	7/.036	9.5	✓12	6 R.C. L.C.
F.O. Burning Pump	1	2	1(3C)	7/.029	6.7	✓11	22 R.C. L.C.
Forced Draft Fan Engine for Boiler	1	5	1(3C)	7/.052	15	✓19	47 R.C. L.C.
ER Ventilating Fan	2	3	1(3C)	2)7/.036	9.5	✓12	SB 110 15 90 R.C. L.C.
FO Service Pump	1	2	1(3C)	7/.029	6.7	✓11	6 R.C. L.C.
Forced Circulating Pump	1	3	1(3C)	7/.036	9.5	✓12	13 R.C. L.C.
F.O. Purifier	1	3	1(3C)	7/.036	9.5	✓12	36 R.C. L.C.
F.O. Clarifier	1	3	1(3C)	7/.036	9.5	✓12	39 R.C. L.C.
L.O. Purifier	1	3	1(3C)	7/.036	9.5	✓12	32 R.C. L.C.
Steering Motor	1	5	1(3C)	2)7/.036	15	✓19	157 V.C. L.C.
Refrigerator	1	5	1(3C)				
Turning Motor	1	5.5	1(3C)	7/.064	17	✓23	22 R.C. L.C.

NOTE.—Use Rpt. 43 Continuation Sheet if the above space is insufficient.

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.

J. Tsing

Electrical Contractors.

Date 1st March, 1959.

KASADO DOCKYARD CO., LTD.

Kasado-Shima, Kudamatsu City,
 Yamaguchi Pref. Japan

COMPASSES.

Have the compasses been adjusted under working conditions..... Yes

A. Matsumura

Builder's Signature.

Date 1st March, 1959.

KASADO DOCKYARD CO., LTD.

Kasado-Shima, Kudamatsu City,
 Yamaguchi Pref. Japan

Have the foregoing descriptions and schedules been verified and found correct..... Yes

Is this installation a duplicate of a previous case..... No If so, state name of vessel.....

Plans. Are approved plans forwarded herewith..... No If not, state date of approval 1958: Aug. 12, Oct. 18, Nov. 18, Dec. 18.
 1959: Jan. 13.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith..... Yes

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.).....

The electric equipment and installation of this ship have been made under Special Survey in accordance with the Rules, approved plans and the Secretary's letters.
 The materials and workmanship are good.
 All tests and trials required by the Rules have been completed with satisfactory results.

Total Capacity of Generators..... 180 K.V.A. ~~KVA~~

The amount of Fee ... £ ¥138,000 :
 *Less 21,150
 Actual Fee ¥116,850

When applied for, 16. APR. 1959

When received, 19

Travelling Expenses (if any) See Rpt. 4b. No. FE935

* 2 sets of Generator Construction Fees Rendered by Yokohama 14/11/58

FRIDAY 22 MAY 1959

Committee's Minute

Assigned

See Rpt. 1

G. H. Kerney
 Surveyor to Lloyd's Register of Shipping.

A. Matsumura

5m.650 - Transfer. (MADE AND PRINTED IN ENGLAND) (The Surveyors are requested not to write on or below the space for Committee Minutes.)



© 2021

Lloyd's Register Foundation