

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office
YOKOHAMA

Date of writing Report 13th Oct. 19 59 When handed in at Local Office 19 Port of YOKOHAMA

No. in Survey held at Yokohama Date, First Survey 19-6-59 Last Survey 1-10-19 59
g. Book. (No. of Visits 9)

on the "KOWA MARU" Tons Gross 21,973.68 Net 13,023.14

Built at Yokohama, Japan By whom built Nippon Kokan K.K., Tsurumi Shipyard Yard No. S-760 When built 9 - 1959

Owners Taiheiyō Kaiun Co., Ltd. Port belonging to Tokyo

Installation fitted by Nippon Kokan K.K., Tsurumi Shipyard When fitted 9 - 1959

Is vessel equipped for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. - Radar Yes

Plans, have they been submitted and approved Yes System of Distribution 3-Phase 3-Wire 1-Phase 2-Wire Voltage of Lighting 115 Volt

Heating 115 Volt Power 445 Volt D.C. or A.C., Lighting A.C. Power A.C. If A.C. state frequency 60 Cycle

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 Yes Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule Yes Position of Generators manoeuvring platform (lower flat) in engine room portside (300 KW x 2 Sets, 70 KW x 1 set)

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 boiler flat in engine room port side

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 synthetic resin bonded board "BAKELITE" 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 over current trips in three phases and a reverse power relay

and the switch and fuse gear (or circuit breakers) for each outgoing circuit a triple - pole linked thermal type breaker with over current trips in three phase

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard A.C.-5 D.C.-3

ammeters A.C.-6 D.C.-3 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 earth indicating lamps of metal-filament type of each 10 watts 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 Utsunomiya Electric Mfg., Co., Ltd., Tokyo, Japan, "CELLO-LITE" Glass cartridge are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate 150% and at what current do the reverse current protective devices operate 10 %

Cables, are they insulated and protected as per Rule Yes

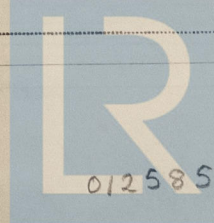
if otherwise than as per Rule are they of an Approved Type - state maximum fall of pressure between bus bars and any point under maximum load 3.15 V. (2.74%) Are all paper insulated and varnished cambric insulated cables sealed at the ends Yes

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 DRLC, TRLC, TVLC, MRLC, (See "NOTE") DRLC, TRLC, DRLA and laundries DRLC State how the cables are supported or protected where not exposed to drip or accumulation of water or oil or risk of mechanical damage cables are supported by clips or straps on brackets, metal hangers or backing plate and where exposed to mechanical damage, they are protected by sheet-iron plating or by steel pipes

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 No and test certificates supplied No

Are the motors accessible for maintenance at all times Yes



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Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory..... Yes

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.

T. Oyama
VICE DIRECTOR
NKK TSURUMI SHIDYARD
YOKOHAMA, JAPAN

Electrical Contractors.

Date 27th Oct. 1959

COMPASSES.

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

H. Asanuma
VICE DIRECTOR
NKK TSURUMI SHIDYARD
YOKOHAMA, JAPAN

Builder's Signature.

Date 27th Oct. 1959

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.....
28-4-59, 7-5-59, 13-5-59,
2-6-59, 23-6-59.

Plans. Are approved plans forwarded herewith..... No If not, state date of approval.....

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 electrical equipment of this vessel has been constructed and installed under the supervision of the Society's Surveyors in accordance with the Rules, Approved Plans and Secretary's letters.

The quality of workmanship and materials have been found satisfactory.

The Equipment has been examined under working condition and insulation tested according to Rules.

It is submitted that the Electrical Equipment of this vessel is eligible to be classed with this Society and to have the notation of \star LMC 9,59.

Total Capacity of Generators..... 670 Kilowatts.

CONSTRUCTION

¥ 48,600

Fuji Elec. Mfg. Co.
Charged 11th June, 1959

The amount of Fee ...

£

When applied for,

INSTALLATION

¥ 203,250

DEC. 7, 1959

When received,

Travelling Expenses (if any) £

19

Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRIDAY 29 JAN 1960

Assigned

See Rpt. 1