

Rpt. 13.

No. 3290.

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 12/12 1953. When handed in at Local Office 22/12 1953. Port of M A L M Ö.

No. in Survey held at M A L M Ö. Date, First Survey 19/9-1953 Last Survey 17/12 1953. Reg. Book. (No. of Visits 34.)

40153s on the t/t "SAXONSKY" Liberian Tons } Gross 12,862
 Net 7,945

Built at Malmö. By whom built Kockums Mek. Verkst. A.-B. Yard No. 360 When built 1953.

Owners Oriental Tanker Corp. S.A. Port belonging to Monrovia.

Installation fitted by Kockums Mek. Verkstads A.-B. When fitted 1953.

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. No. Radar. Yes.

Plans, have they been submitted and approved Yes. System of Distribution 3-phase insul Voltage of Lighting 110

Heating 380 Power 380 D.C. or A.C., Lighting A.C. Power A.C. If A.C. state frequency 50 c/s

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 Yes. Generators, are they compound wound Yes., and level compounded under working conditions Yes.,

if not compound wound state distance between generators --- and from switchboard --- Are the generators arranged to run

in parallel Yes., are ~~short-circuit~~ regulators provided Yes. Is the compound winding connected to the negative or positive pole

--- Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes. Have certificates of

test for machines under 100 kw. been supplied Yes. and the results found as per Rule Yes.

Position of Generators One port and one stbd. side in Engine Room.

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 On a platform in front of

Engine Room.

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 Dead front switchboard. 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 construction as per Rule, including locking of screws and nuts Yes. Description of Main Switchgear

for each generator and arrangement of equaliser switches 3-pole C.B. with isolating switch o/c, r/c and u/v

release.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Triple pole knife switches and triple

pole fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 20

ammeters 6 voltmeters 1 synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection - Earth Testing, state means provided Lamps.

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

make of fuses ASEA are all fuses labelled Yes. If circuit breakers are provided for the generators, at what

overload do they operate Operated at 10% set at 50% and at what current do the reversed current protective devices operate < 15%

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes.

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 < 6% are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Yes or clamps Are all paper insulated and varnished cambric insulated

cables sealed at the ends - 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. Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes. or run in conduit -

or of the "HR" type - State how the cables are supported or protected L.C. & S.T.A. cables clipped to

surface plate or tray in machinery spaces and on decks and covered with steel channel

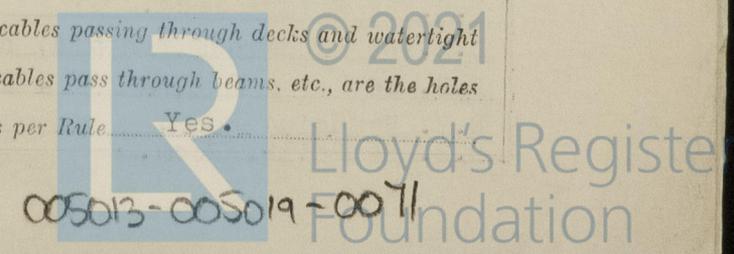
plates under floor plates in E.R. L.C. cables clipped to surface or to wood grounds in

accommodations.

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.



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Yes. Emergency Supply, state position

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 and fitted as per Rule -, are they adequately ventilated - state battery capacity in ampere hours -

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Yes. Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present Yes. if so, how are they protected S.T.A. cables and lamps contained in flame proof fittings.

and where are the controlling switches fitted Wholly outside these spaces. Are all fittings suitably ventilated Yes. Searchlight Lamps, No. of 1, whether fixed or portable Portable, are they of the carbon arc or of the filament type Filament type

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 --- 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.

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 Yes., are all fuses of an Approved Cartridge Type Yes., make of fuse ASEA Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships Yes. Are the cables lead covered as per Rule Yes.

The Submarine Signal Co. (London) Ltd. location of transmitter in E.R. port. and receiver ditto. E.S.D., if fitted state maker - location of transmitter in E.R. port. and receiver ditto. 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.	RATED AT				Revs. per Min.	TYPE.	PRIME MOVER.	MAKER.
			Kilowatts per Generator.	Volts.	Ampères.					
MAIN ...	2	A.E.G.	375 KVA	400	540	1500	Steam turbine.		De-Laval.	
Harbour	1	Thomas Thrige	75 KVA	400	108	600	Oil Eng.		Duplex.	
EMERGENCY ...										
ROTARY TRANSFORMER										

GENERATOR CABLES.

DESCRIPTION.	KVA	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (meters)	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	375	6	95	540	6x105	8 & 17	Rubber	L.C. & S.T.A.
" EQUALISER ...								
Harbour Generator	75	2	95	108	2x105	18	"	" " "
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

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

DESCRIPTION.	No.	Volts.	Ampères.	Rule.	Sectional Area sq. mm.	INSULATION.	PROTECTIVE COVERING.
D.B. C1 E.R. fwd. upper floor	1	10	23	38	13	Rubber	L.C. & S.T.A.
D.B. C2 " aft "	1	10	23	38	33	"	" " "
D.B. C3 " lower platform	1	10	13	38	31	"	" " "
D.B. C4 Laundry	1	10	11	38	47	"	" " "
D.B. C5 amidships	1	10	9	38	87	"	" " "
D.B. C6 E.R. fwd. upper floor	1	10	18	38	18	"	" " "
D.B. C7 Galley	1	10	33	38	58	"	" " "
D.B. B1 Boat Deck.	1	35	28	55	9	"	" " "
D.B. B2 Bridge Deck.	1	35	40	55	6	"	" " "
D.B. B3 Accommodation aft, port.	1	35	49	55	35	"	" " "
D.B. B4 " " , stbd.	1	35	50	55	32	"	" " "
D.B. B5 Engine Room.	1	70	61	55	7	"	" " "
D.B. B6 Boiler Room.	1	16	23	33	35	"	" " "

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (meters)	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.			
D.B. B7 Forecastle.	1	6	14	21	48	Rubber	L.C. & S.T.A.
D.B. B8 Amidships	2	35	110	2x55	88	"	" " "
D.B. B9 Navigation instrument	1	6	12	21	11	"	" " "
Wireless	1	10	10	38	108	"	" " "
Navigation light	1	4 & 1.5	2	16	105 & 3	"	" " "
Radar	1	2.5	3.5	13	3	"	" " "
Gyro	1	1.5	1	7	11	"	" " "
Baking Oven	1	16	25	38	3	"	" " "
Transformers:-							
No.1 Lighting 380/115 Primary	1	35	45.6	55	4	"	" " "
Secondary	2	70	151	2x87	4	"	" " "
No.2 Lighting 380/115 Primary	1	35	45.6	55	7	"	" " "
Secondary	2	70	151	2x87	7	"	" " "

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	Volts.	Ampères.	Rule.	Sectional Area sq. mm.	INSULATION.	PROTECTIVE COVERING.
Fire pump	1	17	1	10	20	38	16	Rubber L.C. & S.T.A.
Circ. pump cargo cond.	1	12	1	6	18	21	15	" " "
Cond. " " "	1	6	1	2.5	9	13	27	" " "
Bilge pump.	1	8	1	4	13.5	16	23	" " "
Forced draft fans	2	45	1	50	60.4	69	44 & 51	" " "
Oil burning pumps	2	6	1	2.5	9	13	46 & 47	" " "
Main Circ. pump	1	100	2	50	138.5	2x69	21	" " "
" cond. pumps	2	20	1	16	28.7	33	16 & 21	" " "
Refr. compr. (domestic)	2	5	1	4	7.4	16	76	" " "
Harb. circ. pump	1	30	1	35	45	55	40	" " "
Main feed water pump	1	115	2	70	152	2x87	23	" " "
Lubr. oil pumps	2	15	1	10	22.5	27	14	" " "
Air compressors	2	6	1	2.5	9	13	45	" " "
Harbour Feed Water Pump	1	50	1	70	70	87	37	" " "
Circ. pumps turbo gen.	2	8	1	4	12	16	16 & 19	" " "
Cond. " " "	2	6	1	2.5	9	13	15 & 18	" " "
Steering gear	2	27	1	25	39	44	64	" " "

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.

KOCKUMS
MEKANISKA VERKSTADS AKTIEBOLAG
ELEKTRISKA AVDELNINGEN

S. Franzen
H. Gustafsson

Electrical Contractors.

Date 19.12.1953

COMPASSES.

Have the compasses been adjusted under working conditions Yes.

KOCKUMS
MEKANISKA VERKSTADS AKTIEBOLAG

U. Nilander

Builder's Signature.

Date 19.12.53

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

Is this installation a duplicate of a previous case Yes. If so, state name of vessel t/t "SAXONSEA", Kockums Yard No. 359.

Plans. Are approved plans forwarded herewith No. If not, state date of approval 18.6 and 10.8.53. Gothenburg.

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

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

The above described electrical equipment installation has been fitted onboard in accordance with the Rules, approved plans and instructions and has been tested with satisfactory results.

The workmanship and material are good.

This electric equipment installation is in my opinion suitable for a classed vessel.

*Noted 25
11/1/54*

Total Capacity of Generators 825 KVA
KVA

The amount of Fee ... £r. 2.370:- When applied for, 22/12 19 53

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

A. Barring

Surveyor to Lloyd's Register of Shipping.

FRIDAY 15 JAN 1954

Committee's Minute

Assigned *See Rpt. 4a*

