

# Report on Electrical Equipment.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report 12.2 1944. When handed in at Local Office ..... 19..... Port of Stockholm.

No. in Survey held at Stockholm Reg. Book. Date, First Survey 9.9 Last Survey 13.1 1943-44.  
(Number of Visits Nine.....)

..... on the motor-tanker "SKANSEN". Tons { Gross 717  
Net 446

Built at Stockholm By whom built AB. Ekensbergs Varv Yard No. 179 When built 1943.

Owners Enhörnings Kemiskt-Tekniskt A.-B. Port belonging to Stockholm.

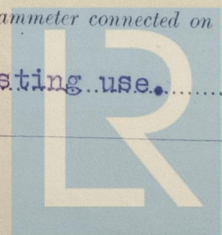
Electrical Installation fitted by A.E.G. Contract No. T21107. When fitted 1943.

Is vessel fitted for carrying Petroleum in bulk Yes 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 Two wire system Voltage of supply for Lighting 110.

Heating..... Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. 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..... 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  
..... Negative..... Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing None fitted certificates of  
test for machines under 100 kw. been supplied Yes..... and the results found as per rule Yes..... Are the lubricating arrangements and the construction  
of the generators as per rule Yes..... Position of Generators Both in engine room. Stbd side 8 KW. Port side 30 KW.  
....., 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 In the engine room, port side forward.  
.....  
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 marble....., 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 Yes..... 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.....  
For generator 30 KW. A double pole linked circuit breaker with a fuse on each pole.  
For generator 8 KW. " " " " " " " " " " " "  
and for each outgoing circuit A double pole linked switch and a fuse on each pole.  
.....  
Are compartments containing switchboards composed of fire-resisting material or lined as per Rule..... Instruments on main switchboard Two.  
ammeters 3..... 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 One voltmeter for testing use.

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Foundation



Switches, Circuit Breakers and Fuses, are they as per Rule Yes..... are the fuses an approved type Diased..... are all fuses labelled as per Rule Yes..... are the reversed current protection devices connected on the pole opposite to the equaliser connection Yes..... have they been tested under working conditions..... Yes..... **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 No....., if otherwise than as per Rule are they of an approved type..... Yes..... state maximum fall of pressure between bus bars and any point under maximum load..... 3 volts..... 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..... Yes..... 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..... Yes..... Are cables in machinery spaces, galleys, laundries, etc., lead covered All cables lead covered..... or run in conduit..... partly covered..... State how the cables are supported and protected The cables are supported by clips and double iron armoured..... They are led through pipes where necessary.....

Are all lead sheaths, armouring and conduits effectually bonded and earthed..... Yes..... Refrigerated chambers, are the cables and fittings as per Rule..... 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..... and with what material..... Lead..... **Alternative Lighting**, are the groups of lights in the engine and boiler rooms arranged as per Rule..... Yes..... **Emergency Supply**, state position..... None..... and method of control..... Yes.....

**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..... Yes..... **Secondary Batteries** are they constructed and fitted as per Rule..... Yes....., are they adequately ventilated..... Yes.....

**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..... Yes.....

....., are all fittings suitably ventilated..... Yes.....

are all fittings and accessories constructed and installed as per Rule..... Yes..... **Searchlight Lamps**, No. of..... None....., whether fixed or portable..... Yes.....

....., are their fittings as per Rule..... Yes..... **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..... Yes..... **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..... Yes..... and vertically..... Yes.....

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing..... None..... Have certificates of test for motors under 100 BHP intended for essential 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..... Yes..... **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 the cartridge type..... Yes.....

are they of an approved type..... Diased..... If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type..... None fitted..... **Spare Gear**, if the vessel is for open sea service have spares been provided as per Rule..... Yes....., are they suitably stored in dry situations..... Yes..... **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	One	30	115	261	800/860	2 cyl. 2SCSA Bolind. eng.	Diesel oil	80° C.
	One	8	115	69.6	900/970	1 " " " " " " " " " "	"	"
Cyl 11.5 BHP engine fitted 2/4/8.								
EMERGENCY								
ROTARY TRANSFORMER								

#### GENERATOR CABLES.

DESCRIPTION	KILOVATTS	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (lead plus return feet) metres	INSULATED WITH	HOW PROTECTED.
		No. in Parallel For Pole	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit	Rule			
MAIN GENERATOR	30	2	140	261	260	9	Vulc.	Lead covered
Aux. " <del>rotary</del>	8	1	25	69.6	63	30	rubber	and armoured
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

#### MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS								
A. Engine room	1	10	15	37	17	"	"	"
B. Pantry	1	2.5	6	15.5	11	"	"	"
C. Bridge (Navigation lights).	1	2.5	2	15.5	22	"	"	"

#### LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	4.0	Battery	22	22	"	Lead covered
NAVIGATION LIGHTS	1	1.5	2	7	90	"	" " "
LIGHTING <del>XXXXXXXXXX</del>	1	1.5	2	7	100	"	" " "
Oil heater	1	1.5	4	7	24	"	Lead covered and armoured
Secondary battery	1	4.0	15	22	32	"	Lead covered and armoured
2 water heaters	1	10.0	13.6	37	30	"	Lead covered

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Windlass	1	16	1	70.0	127	130	122	" Lead covered and armoured
Winch +)	1	10	1	25.0	64	63	10	" " "
Oil separator	1	1.1	1	1.5	7	7	24	" " "
Pump motor	1	4	1	10	27	37	30	" " "

+ ) The winch is not of a totally enclosed type and the same is therefore recommended to be replaced by one of approved type. No flame-proof certificate is available.



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

ELEKTRISKA AKTIEBOLAGET AEG  
FILIAL STOCKHOLM

*Handwritten signature*

Electrical Engineers. Date 10.2.44

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 10 metres

Minimum distance between electric generators or motors and steering compass 8 metres

The nearest cables to the compasses are as follows:—

A cable carrying 0.3 Ampères 2 metres from standard compass 2 metres from steering compass.

A cable carrying Ampères feet from standard compass 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 None

The maximum deviation due to electric currents was found to be degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

A.B. EKINSBERGS VARV

*Handwritten signature*

Builder's Signature. Date 10.2.44

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 equipment has been fitted onboard under my supervision and to my satisfaction.

The workmanship is good and the Rule Requirements have been complied with.

It is recommended the Electric Winch being replaced by one of approved type.

Total Capacity of Generators 38 Kilowatts.

The amount of Fee	Kr. 465:-	When applied for,	12.1.19.44.
Travelling Expenses (if any) £	:	When received	19.

*Handwritten signature*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

