

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

2 FEB 1952

No. 8519

Date of writing Report 30/ 19 52 When handed in at Local Office 19 Port of Stockholm

No. in Survey held at Grisslehamn & Gåshaga Date, First Survey 11.9. Last Survey 9.10. 19 51

(No. of Visits 4)

Tons { Gross 483
Net 302

on the m.s. "ELENDÄ" (former Swedish War Vessel).

Built at Gothenburg By whom built AB Lindholmens Varv Yard No. - When built 1875

Owners Partred. E. Bernstrand T. Jansson Port belonging to Stockholm

Installation fitted by Hallstaviks Elektriska Byrå When fitted 1951

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

Plans, have they been submitted and approved Yes System of Distribution DC Voltage of Lighting 110

Heating - Power 110 D.C. or A.C., Lighting DC Power DC If A.C. state frequency -

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 Yes, and level compounded under working conditions -

Are the generators arranged to run in parallel No Is the compound winding connected to the negative or positive pole negative

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

under 100 kw. been supplied and the results found as per Rule Yes Position of Generators Main generator on starboard side

Harbour set on port 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 Forward end 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 Porcelain, 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 double pole circuit breakers with overload protection

for each generator and arrangement of equaliser switches double pole knife switch and a fuse on each pole.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit double pole knife switch and a fuse on each pole.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 1

ammeters 1 voltmeters - 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

testing lamps - Preference Tripping, state if provided -, and tested -

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

make of fuses IFÖ, ASEA, AEG, DIAZED, are all fuses labelled Yes If circuit breakers are provided for the generators, at what overload do they operate Tested at 10 % set at 30 %, and at what current do the reverse current protective devices operate -

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 % ~~xxxx~~ 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 No, if so, are they adequately protected - State type of cables (if in conduit this should also be stated) in machinery spaces L.C. armoured, galleys L.C. armoured

and laundries - State how the cables are supported or protected In machinery space, on deck and in holds L.C. armoured cables clipped to bulkheads or steel plates. In accomodation:- L.C. steel wire braided cables clipped to bulkheads.

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 -

Refrigerated chambers, are the cables and fittings as per Rule -

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

Are the motors accessible for maintenance at all times Yes



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011378-011385-0174

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

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. -, state battery capacity in ampere hours -. Where required to do so does it comply with 1948 International Convention. -.

Lighting, is fluorescent lighting fitted. No. If so, state nominal lamp voltage. - and compartments where lamps are fitted. -.

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

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

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. None installed.

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. -.

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. -. Location of transmitter and receiver. -.

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				PRIME MOVER.	
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN	1	ASEA	5	115	43.5	1500	Open ventilated	A.B. Pytagoras
HARBOUR SET	1	ASEA	10	110	87	1600	"	"

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	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.	In the Circuit.	Rule.			
MAIN GENERATOR	5	1	16	43.5 ✓	49	12	Rubber	L.C. Armoured	
" " EQUALISER									
HARBOUR SET	10	1	25	87 ✓	63	10	"	- " -	
EMERGENCY GENERATOR									
EMERGENCY TRANSFORMER									
EMERGENCY MOTOR									
" " GENERATOR									

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

DESCRIPTION.									
1 sub. D.F.B. Accommodation aft Port side	1	4	20	22.5	26	Rubber	L.C. Armoured		
1 " " " " stb. "	1	4	20	22.5	22	"	"		
1 " " Nav. Bridge	1	2.5	15	15.5	30	"	"		

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 sq. mm.	In the Circuit.	Rule.			
Lighting	1	1.5	10	9.5		Rubber	L.C. Armoured
Wireless	1	4	20	22.5	28	"	"
Nav. lights	1	1.5	2.25	9.5	50	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	B.H.P.																
Oil fuel transfer pump	1	0.25	1	1.5	2.8	9.5	24	Rubber	L.C. armoured										
Hydrofor pumps	2	1/3	1	1.5	3.2	9.5	16	"	"										
Transformer for Wireless	1	0.6KVA	1	4	6.7-8.3	22.5	14	"	"										

NOTE.—Use Rpt. 13 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.

Hallstavlks Elektriska Byrå

Electrical Contractors.

Date 10-1 1952

COMPASSES.

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

GRISSEHAMNS VARV

T. Jansson & Co.

Builder's Signature.

Date 15/1 1952

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 2.7.51

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.)

NOTE:-

The harbour generator set prime mover is an unclassified Pythagoras motor. The generators are not arranged to run in parallel.

The electrical equipment has been installed under Special Survey in accordance with the approved plans and the Secretary's letters. The materials and workmanship are good. On completion the equipment was operated under working conditions and found satisfactory. The equipment is in my opinion suitable for a classed vessel.

Test sheets on generators and electric motor for fuel oil transfer pump are attached.

Noted 12.2.52

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ... Kr. 270:-- : When applied for, 30/ 1952

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

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

26 FEB 1952

Assigned