

Rpt. 13.

No...17245.....

Report on Electrical Equipment.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

13 FEB 1950

Received at London Office.....

Date of writing Report..25th Jan.. 19.50. When handed in at Local Office..9th Febr.. 19.50. Port ofGothenburg.....

Survey held at.....Gothenburg..... Date, First Survey..9th Sept..49Last Survey..4th February1950..
No. in Reg. Book. (Number of Visits.....24.....)

..35245..... on the ..Motor Tanker "L I N D E S N Ä S" Tons {Gross.....1202.....
Net.....540.....

Built atGothenburg..... By whom built ...A-B. Lindholmens Varv... Yard No. 1011... When built ...1950..

OwnersRederi A-B. Nordstjemen..... Port belonging toStockholm.....

Electrical Installation fitted byA-B. Lindholmens Varv..... Contract No. ---..... When fitted1950.....

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

Have plans been submitted and approved...Yes... System of DistributionTwo wire..... Voltage of supply for Lighting....115.....

Heating..... Power. 220..... 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 woundYes..... 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 parallelYes....., are shunt field regulators providedYes..... 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 Have certificates of

test for machines under 100 kw. been suppliedYes..... and the results found as per ruleYes..... Are the lubricating arrangements and the construction

of the generators as per ruleYes..... Position of Generators One on each side on the engine room floor... Harbour light-

ing set on starboard side on the ER floor, is the ventilation in way of generators satisfactoryYes..... are they clear of inflammable materialYes..... 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 oilYes..... are the bedplates and frames earthedYes..... and the prime movers and generators in metallic

contactYes..... Switchboards, where are main switchboards placed On a platform aft on the port side in the engine room

are they in accessible positions, free from inflammable gases and acid fumesYes..... are they protected from mechanical injury and damage from water, steam

and oilYes....., if situated near unprotected combustible material state distance from same horizontally and vertically what insulation

material is used for the panelsMica....., 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 frame effectually earthedYes.....

Is the construction as per RuleYes....., including accessibility of partsYes....., absence of fuses on the back of the boardYes....., individual fuses

to pilot and earth lamps, voltmeters, etc.,Yes..... locking of screws and nutsYes..... labelling of apparatus and fusesYes..... fuses on the »dead»

side of switchesYes..... Description of Main Switchgear for each generator and arrangement of equaliser switchesA double pole linked

circuit breaker with overload and reversed current trip gear and a single pole equaliser switch

and for each outgoing circuitA double pole switch and a fuse on each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per RuleYes..... Instruments on main switchboard6.....

ammeters2..... voltmeters synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connectionYes..... Earth Testing, state means provided Ohm - meter

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.....**---**..... and with what material.....**---**..... **Alternative Lighting**, are the groups of lights in the engine and boiler rooms arranged as per Rule.....**Yes**..... **Emergency Supply**, state position.....**---**.....
..... and method of control.....**---**.....
..... **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.....**Yes**....., if so, how are they protected.....**Yes**.....

Approved flame-proof fittings. Cables in gas-tight tubing......
and where are the controlling switches fitted.....**Outside the compartment**..... are all fittings suitably ventilated.....**Yes**.....

are all fittings and accessories constructed and installed as per Rule.....**Yes**..... **Searchlight Lamps**, No. of.....**1**....., whether fixed or portable.....**Fixed**.....
..... are their fittings as per Rule.....**Yes**..... **X**..... **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.....**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.....**---**..... and vertically.....**---**.....

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing.....**---**..... 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.....**Yes**..... If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type.....**---**..... **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**.....

DESCRIPTION OF GENERATOR	No. of	R A T E D A T				D R I V E N B Y	W H E R E D R I V E N B Y A N I N T E R N A L C O M B U S T I O N E N G I N E	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	45	230	195.5	800	Heavy oil engine	Diesel oil	Above 150° F.
	1	15	230	65.2	800	Heavy oil engine	Diesel oil	Above 150° F.
EMERGENCY ...								
ROTARY TRANSFORMER	1	HP 12	220	49.7	1450	Electric motor	---	---
		KW 8	115	69.5	1450			

DESCRIPTION	KILOWATTS	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH lead plus return feet. M.	INSULA- TED WITH	HOW PROTECTED.
		No. in Parallel Per Pole	Sectional Area					
			$\frac{1}{2}$ inch dia. No. 10 B. & S. Gage.	In the Circuit	Rule			
MAIN GENERATOR	45	1	95	195.5 ✓	243	16 & 24	Paper	Lead covered & armoured
" " EQUALISER	--	1	95	---	243	8 & 12	"	- " -
HARBOUR LIGHTING GENERATOR	15	1	16	65.2 ✓	78	16	"	- " -
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR	11.5	1	16	49.7 ✓	78	6	"	- " -
" " GENERATOR	8	1	35	69.5	77.5	6	Rubber	- " -

[illegible]

WIRELESS								
NAVIGATION LIGHTS	B 6	1	2.5	2.2 ✓	12.8	28	Rubber	Lead covered & armoured
LIGHTING								
Engine Room	B 1	1	4	18 ✓	22.2	6	"	- " -
Pump Room and Deck	B 2	1	4	13.5 ✓	22.2	6	"	- " -
Crew's Accommodation	B 3	1	6	21 ✓	29.4	12	"	- " -
Officers' Accommodation and Saloon	B 4	1	16	32 ✓	48.0	16	"	- " -
Saloon etc.	B 5	1	6	15 ✓	29.4	6	"	- " -
HEATING								
Lubricating Oil Heater		1	16	41 ✓	48.0	3	"	- " -
Fuel Oil Heater		1	16	41 ✓	48.0	2	"	- " -
Water heater		1	10	32 ✓	38.2	24	"	- " -

[illegible]

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.

AKTIEBOLAGET LINDHOLMENS VARV

ELEKTRISKA AVDELNINGEN

Torgue Liddal

Electrical Engineers. Date *1/2-1950*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *About 13 Metres.*

Minimum distance between electric generators or motors and steering compass *About 11 Metres.*

The nearest cables to the compasses are as follows:—

A cable carrying *0.3* Ampères *5* feet from standard compass *3* feet 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 *Yes*

The maximum deviation due to electric currents was found to be *0* degrees on *every* course in the case of the standard compass, and *0* degrees on *every* course in the case of the steering compass.

AKTIEBOLAGET LINDHOLMENS VARV

Torgue Liddal

Builder's Signature. Date *1/2-1950*

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *M/T "Elfnäs" and "Framnäs",*
Got. reports 16707 & 17035 resp.

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

This electrical installation has been fitted on board under my inspection and to my satisfaction in accordance with the Rules and approved plans. The workmanship and materials are good. Makers' certificates of generators and motors are attached.

Noted sub 27/2/50

Total Capacity of Generators *105* Kilowatts.

The amount of Fee Kr. *1010:-* { When applied for, *9/2-1950.*
Travelling Expenses (if any) Kr. --- { When received *19--*

Anders Sjögren for himself and S. Johansson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI, 10 MAR 1950*

Assigned *In unilic see J.E. Rfl*

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