

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

13 JUN 1949

Received at London Office

Writing Report 2nd. March 1949. When handed in at Local Office 25th. March 1949 Port of Baltimore, Maryland

Survey held at Baltimore, Maryland Date, First Survey 13th May Last Survey 21st Dec. 1948
(No. of Visits 6)

on the M.V. "ANNA SALEN" (Ex "ARCHER" ex. "NORMAND") Tons { Gross 7840
Net 4635

at Chester, Pa. By whom built Sun S.E. & Drydock Co. Yard No. 184 When built 1940

Service Rederi A/B Pulp Port belonging to Stockholm

Installation fitted by Sun Shipbuilding & Drydocking Co. When fitted 1940

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

Have they been submitted and approved. submitted System of Distribution 120/240 V. 3 Wire Voltage of Lighting 120 V.

Power 240 V D.C. or A.C., Lighting - Power - If A.C. state frequency D.C.

Movers, has the governing been found as per Rule when full load is thrown on and off - Are turbine emergency governors fitted

trip switch - Generators, are they compound wound Yes, and level compounded under working conditions Yes

compound wound state distance between generators - and from switchboard - Are the generators arranged to run

parallel. Yes, are shunt field regulators provided Rheostats. Is the compound winding connected to the negative or positive pole

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

or machines under 100 kw. been supplied - and the results found as per Rule. -

Location of Generators. Lower Level - Engine Room S.S.

ventilation in way of generators satisfactory Yes - are they clear of inflammable material and protected from mechanical injury and

protection from water, steam and oil. Yes Switchboards, where are main switchboards placed. Upper level Engine Room SS

switchboards in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

and oil. Yes, what insulation is used for the panels. Dead Front Type, 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. A.I.E.E. #45 Description of Main Switchgear

per generator and arrangement of equaliser switches. 5 pole Circuit Breaker & 5 pole Disconnect Switch with positive

negative Equalizer Busses per A.I.E.E. #45

switch and fuse gear (or circuit breakers) for each outgoing circuit. Air Circuit Breakers for Circuits over 600A &

and Air Circuit Breakers for Circuits 600A & Under.

compartments containing switchboards composed of fire-resisting material or lined as per Rule. - Instruments on main switchboard. 8

ammeters. 5 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reversed current

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

indicator Lamps & voltmeter with voltmeter switch.

switches, Circuit Breakers and Fuses, are they as per Rule. A.I.E.E. #45, are the fuses an Approved Type. A.I.E.E. #45

of fuses. Buss & Shewmutt, are all fuses labelled. Yes If circuit breakers are provided for the generators, at what

current do they operate. 125%, and at what current do the reversed current protective devices operate. 15%

Boxes, Section Boards and Distribution Boards, is the construction as per Rule. A.I.E.E. #45

are they insulated and protected as per Rule. A.I.E.E. #45 if otherwise than as per Rule are they of an Approved Type. -

maximum fall of pressure between bus bars and any point under maximum load. 5%, are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets. Mech. Ings. 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. No, if so, are they

adequately protected. - Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. No

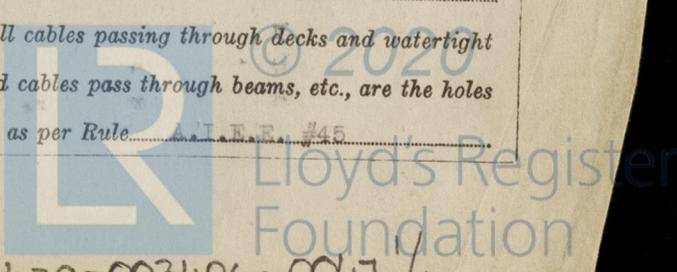
the "HR" type. - State how the cables are supported or protected. A.I.E.E. #45 - Supported on Metal Hangers -

Spacing 18"

All lead sheaths, armouring and conduits effectually bonded and earthed. Yes Are all cables passing through decks and watertight

heads provided with deck tubes or watertight glands. Yes, where unarmoured cables pass through beams, etc., are the holes

adequately bushed. Yes Refrigerated chambers, are the cables and fittings as per Rule. A.I.E.E. #45



003479-003486-0047/4

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

Continuation of Report No.

dated

on the

Navigation Lamps, are they separately wired... controlled by separate double pole switches and fuses... Are the switches a position accessible only to the officers on watch... is an automatic indicator fitted... Is an alternative supply provided...
 Secondary Batteries, are they constructed and fitted as per Rule... are they adequately ventilated...
 Emergency generator state battery capacity in ampere hours 100 KW. Emergency Diesel Driven Gen. with Auto Start
 Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weather proof... Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present... if so, how are they protected... Lights in Battery Rooms & Paint Lockers are Explosion Proof... and where are the controlling switches fitted... outside of Compartments... Are all fittings suitably ventilated...
 Searchlight Lamps, No. of 2, whether fixed or portable. Fixed, are they of the carbon arc or of the filament type...
 Heating and Cooking, is the general construction as per Rule A.I.B.S. #45, are the frames effectually earthed... Yes... are the accommodation of the convection type... Motors, are all motors constructed and installed as per Rule and placed in well 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 compartment... Yes... 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 sea services been supplied and the results found as per Rule...
 Control Gear and Resistances, are they constructed and fitted as per Rule A.I.B.S. #45, Lightning Conductors, where required are they fitted... Rule... Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such complied with... are all fuses of an Approved Cartridge Type... make of fuse... Are the fittings rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships... Are the 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.
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	
MAIN	3		275	120/240	1145	Diesel	
EMERGENCY ROTARY TRANSFORMER	1		100 KW	120/240	417	Diesel	Buda

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	275	2	0.7854	1150	1728	48	Varn. Cambric	Lead & Armor
" " EQUALISE		2	0.7854	1150	1728	48	"	"
" " Neutral		1	0.7854	293	864	24	"	"
" " Shunt Fld.		1	0.0206	-	55.5	48	"	"
EMERGENCY GENERATOR	100	1	0.5173	417	636	40	"	"
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

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

DESCRIPTION.	No. of	Sect. Area In Sq. In.	In The Circuit	Rule Length	Return	Insulation	Protective Covering
Main Subd. to Laundry Pwr. Panel	1	0.0130	9.9	41	50	Varn. Cambric	Lead & Armor
" " " Cargo Winches #3-4-5&6	2	0.3535	736	986	500	"	"
" " " " #7-8-9&10	2	0.3535	736	986	400	"	"
" " " " #11 & 12	1	0.3535	368	493	380	"	"
" " " " #13 & 14	1	0.3535	368	493	330	"	"
" " " " #15-16-17-18	2	0.3535	736	986	350	"	"
" " " Machine Shop P.P.	1	0.0329	69.9	134	36	"	"
" " " P. Aft. Group Contr. Bd.	2	0.0521	1013.2	1474	200	"	"
" " " P. Eng. " " "	2	0.0521	1013.2	1474	80	"	"
" " " Sthd. " " "	2	0.0521	1030	1474	90	"	"
" " " Galley Pwr. Panel	1	0.1562	239.4	286	230	Asbestos	Syn. Resin Sheath & Armor
" " " Officer's Pentry P.P.	1	0.0329	49.1	75	90	Varn. Cambric	Lead & Armor

Additional Sheet #1 MAIN DISTRIB. CABLES CONTINUED

DESCRIPTION	No. of	Sect. Area In Sq. In.	In The Circuit	Rule Length	Return	Insulation	Protective Covering
Subd. to Pass. Pentry P.P.	1	0.0414	43.1	88	160	Varn. Cambric	Lead & Armor
" Aft. Cargo Blower P.P.	1	0.0329	11.8	75	320	"	"
" Fwd. " " P.P.	1	0.1562	44.7	299	350	Asbestos	Sheath & Armor
" Eng. Pm. Blower P.P.	1	0.0659	42.2	117	50	Varn. Cambric	Lead & Armor
" Quartz Blower P.P.	1	0.0414	51.4	88	110	"	"
" Test Panel	1	0.0521	70	99	196	"	"
" P. Aft. Group Contr. Bd.	1	0.0414	56.4	88	200	"	"
" Cargo Winches #19 & 20	1	0.3535	368	493	500	"	"
" " " #1 & 2	1	0.3535	368	493	420	"	"
" Cargo Refrig. Group Contr. Bd.	1	0.3535	335	493	160	"	"
" " " Temp. Contr. P.P.	1	0.0092	7.0	30	60	"	"
" Ships Serv. Refrig. P.P.	1	0.0659	66	117	170	"	"
" Life Boat Winches	1	0.1659	184	292	160	"	"
" Evaporator P.P.	1	0.0329	41.5	75	175	"	"
" Emergency Subd.	1	0.6513	487	762	160	Asbestos	Sheath & Armor
" Shore Conn. Boxes	1	0.6513	600	762	92	"	"

CONTINUED ON ADDITIONAL SHEET # 1

1M-8-46-Transfer (Printed in U. S. A.) (The Surveyors)

M.V. "ANNA ALLEN"

Additional Sheet #2

MOTOR CABLES CONTINUED

DESCRIPTION	NO.	H.P.	# in parallel	Section Area Sq. In.	In. Cir.	Amps. Rule	Length	Insulation	Protective Covering
Blower	1	2.3	1	0.0051	10.5	22	350	Vern. Cambric	Lead & Armor
"	2	2 1/2	1	0.0051	9.25	22	300	"	"
"	2	2 3/4	1	0.0130	10.5	41	80	"	"
"	2	4.0	1	0.0206	16.8	47	200	"	"
" Eng. Rm. Supply	2	25	1	0.0658	22	117	180	"	"
Drill Press - Elec. Shop	1	1/2	1	0.0032	2.3	11.5	24	Rubber	"
Grinder	1	1	1	0.0032	4.3	11.5	24	"	"
Red. Gear Turning Motor	1	5	1	0.0130	20	41	80	Vern. Cambric	"
Engine	4	1 1/2	1	0.0032	6.6	13	180	"	"
Waste Heat Burner & Pump Blower	1	5	1	0.0130	20	41	100	"	"
Waste Heat Burner Motor	1	1/4	1	0.0032	1.3	13	20	"	"
Cargo Refrig. Compressor	3	25	1	0.0829	24	134	50	"	"
" " "	1	15	1	0.0414	58	88	50	"	"
" " Cond. Circ. Pump	2	5	1	0.0310	20	41	220	"	"
" " Diff. Fan.	2	5	1	0.0310	20	41	110	"	"
Ship's Serv. Refrig. Compressor ^{PHL}	2	7 1/2	1	0.0658	22	117	50	"	"
" " " Cond. Circ. Pump	1	1 1/2	1	0.0051	6.3	22	220	"	"
Life Boat Winch	2	25	1	0.0829	22	117	50	"	"
Dist. Feed P.	2	2	1	0.0051	2.3	22	72	"	"
st Water Pump	2	2	1	0.0051	2.3	22	56	"	"
d Disch. Pump	1	2	1	0.0051	2.3	22	48	"	"
der	1	15	1	0.0658	56	117	196	"	"
Cyro Pilot Pwr. Unit	1	1/2	1	0.0130	2.3	41	550	"	"



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

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.			
Main Subd. to Radio Unit	1	0.0329	15.7	75	160	Varn. Cambric	Lead & Armor
" " " Fwd. Heater Dist. P.	1	0.0329	28.8	75	350	"	" "
" " " Aft. " " P.	1	0.0329	15.6	75	320	"	" "
" " " Aft. Pks " " P.	1	0.0329	22.7	75	500	"	" "
" " " Focals " " P.	1	0.0329	17.3	75	700	"	" "
" " " Eng. Rm. Ltg. Panel	1	0.1045	111.7	158		"	" "
" " " Fwd. Cargo Ltg. Panel	1	0.0521	103.9	99		"	" "
" " " Aft. " " "	1	0.0521	64.7	99		"	" "
" " " Cabin Dk. Ltg. Panel	1	0.0629	48.5	134		"	" "
" " " Shel. & 2nd Dks. Ltg. P.	1	0.1238	69.2	177		Asbestos Varn. Cambric	Syn. Resin Sheath and Armor
" " " Boat Dk. Ltg. Panel	1	0.0521	30.3	99		Asbestos Varn. Cambric	Lead & Armor
" " " Cargo Refrig. Ltg. P.	1	0.0595	24.3	109		Asbestos Varn. Cambric	Syn. Resin Sheath & Armor
Emerg. Subd. to Radio Unit	1	0.0329	15.7	75		Varn. Cambric	Lead & Armor
" " " Eng. Rm. Em. Ltg. P.	1	0.0082	18.9	30		"	" "
" " " Cabin Dk. Em. Ltg. P.	1	0.0206	32.7	55.5		"	" "
" " " Wheel Hse. Em. Ltg. P.	1	0.0130	24.3	41		"	" "
" " " Navigation Ltg. Panel	1	0.0082	3.0	30		"	" "
Note:- All Branch Ltg. Circuits are Loaded to Max. of 880 Watts							
Except in Mach. Spaces Which are -	1	0.0032	8.0	11.5	?	Rubber Varn. Cambric	" "
	1	0.0051	8.0	22	?	"	" "

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Emerg. Air Compressor	1	10	1	0.0658	78	117	200	Varn. Cambric	Lead & Armor
Steering Gear	2	50	1	0.3148	203	456	560	"	" "
Alter Capstan	1	50	1	0.1659	184	299	500	"	" "
Anchor Windlass	1	70	1	0.2745	257	417	700	"	" "
Cargo Winches	20	50	1	0.1659	184	299	60	"	" "
Steer	1	7 1/2	1	0.0130	28.7	41	28	"	" "
Lathe	1	7 1/2	1	0.0130	28.7	41	16	"	" "
Drill Press	1	1	1	0.0051	4.2	22	46	"	" "
Grinder	1	2	1	0.0051	8.3	22	20	"	" "
M.D. Separator	2	3	1	0.0082	12.3	30	80	"	" "
" " Pump	2	2	1	0.0082	8.3	30	80	"	" "
F.O. Transfer	1	40	1	0.1318	147	185	110	"	" "
Lub. Oil Pump	3	75	1	0.1969	275	333	140	"	" "
Main Air Compressor	2	90	1	0.2745	330	417	100	"	" "
Salt Water Circ. Pump	3	50	1	0.1318	184	256	140	"	" "
Bilge Pump	1	15	1	0.0414	58	88	130	"	" "
Ballast Pump	1	15	1	0.0414	58	88	120	"	" "
Air Priming Pump	1	5	1	0.0130	20	41	30	"	" "
Lub. Oil Separator	2	3	1	0.0082	12.3	30	150	"	" "
" " " Pump	2	2	1	0.0082	8.3	30	150	"	" "
F.W. Circ. Pump	3	50	1	0.1318	184	256	130	"	" "
Fire Pump	1	50	1	0.1318	184	256	60	"	" "
Fire & Sanitary Pump	1	50	1	0.1318	184	256	40	"	" "
F. D. Booster Pump	2	2	1	0.0032	8.6	13	120	"	" "
Wash Water Pump	2	7 1/2	1	0.0130	30	41	150	"	" "
Drinking Water Pump	2	1 1/2	1	0.0032	2.4	13	140	"	" "
Sanitary Pump	1	7 1/2	1	0.0130	30	41	50	"	" "
Blower	11	1/20	1	0.0032	0.36	13	150	R.C.	" "
"	1	1/10	1	0.0032	0.50	13	130	R.C.	" "
"	1	1/7	1	0.0032	0.70	13	100	R.C.	" "
"	3	1/4	1	0.0032	1.4	13	180	R.C.	" "
"	2	1/3	1	0.0032	1.65	13	150	R.C.	" "
"	4	1/2	1	0.0032	2.3	13	158	R.C.	" "
"	8	3/4	1	0.0032	3.5	13	180	R.C.	" "
"	2	1	1	0.0061	4.3	22	136	V.C.	" "
"	1	1.4	1	0.0051	6.3	22	84	"	" "

© 2020

Lloyd's Register Foundation

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.

..... Electrical Contractors. Date.....

COMPASSES.

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

..... Builder's Signature. Date.....

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

Is this installation a duplicate of a previous case..... If so, state name of vessel.....

Plans. Are approved plans forwarded herewith..... Yes..... If not, state date of approval.....

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

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

The electrical equipment of this vessel was installed to the requirements of the American Bureau of Shipping when built as a freighter. During the war the vessel was converted to a naval Escort Officer and operated as such until the end of the war. During the present reconversion the original electrical installation has been restored and is now in accordance with the original plans. The vessel has been examined throughout all generators, switchboards and wiring throughout the vessel according to the whole of the electrical installation has been tested and found to be satisfactory and in the opinion of the undersigned all in accordance with this society.

Noted Sent 20/7/49

Total Capacity of Generators..... 825 ✓ Kilowatts.

The amount of Fee £ \$350.00 :
 When applied for, 31st Mar 1949
 Travelling Expenses (if any) £ : :
 When received, 19.....

[Signature]

Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... NEW YORK MAY 25 1949 *[Signature]*

Assigned *elec light*

2m.9.46.—Transf. (Scale and printed in England.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



© 2020

Lloyd's Register Foundation