

Rpt. 13.

REPORT ON ELECTRICAL EQUIPMENT.

No. 20595

Date of writing Report 16-2-55¹⁹ When handed in at Local Office 7/3/1955 Received at London Office 17 MAR 1955

No. in Survey held at GENOVA Port of GENOVA Date, First Survey 15-10-54 Last Survey 14-2-55¹⁹ (No. of Visits 23)

on the SINGLE SCREW "ARGEA PRIMA" Tons { Gross 20771 Net 12172

Built at GENOVA-SESTRI By whom built SA. ANSALDO-CANTIERI NAVALI Yard No. 1494 When built 1955

Owners "ARGEA" COMP. DI NAVIGAZIONE S.P.A. Port belonging to PALERMO

Installation fitted by SA. ANSALDO-CANTIERI NAVALI When fitted 1955

Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES RADAR YES

Plans, have they been submitted and approved. YES System of Distribution PARALLEL SYSTEM WITH CONSTANT PRESSURE, TWO WIRE VOLTAGE OF LIGHTING 110

Heating YES Power 220 D.C. or A.C., Lighting DIRECT Power DIRECT If A.C. state frequency YES

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. YES and from switchboard. YES Are the generators arranged to run in parallel. YES, 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. YES Have certificates of test for machines under 100 kw. been supplied. YES and the results found as per Rule. YES

Position of Generators TWO 550 KW TURBOGENERATOR SETS FITTED ON FLAT AT THE AFTER END OF E.R. ONE 120 KW OIL ENGINE GENERATOR SET FITTED ON FLAT PORTSIDE OF E.R.

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 FLAT STARBOARD SIDE 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 TYPE - METALLIC FRAME MICANITE BUSHES & WASHERS.

material is it an Approved Type YES, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule. YES Is the construction as per Rule, including locking of screws and nuts. YES

Description of Main Switchgear FOR EACH GENERATOR: A DOUBLE POLE CIRCUIT BREAKER WITH OVERLOAD TRIP ON EACH POLE, REVERSE CURRENT TRIP AND INTERLOCKED EQUALIZER SWITCH.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit A DOUBLE POLE CIRCUIT BREAKER WITH OVERLOAD TRIP ON EACH POLE

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. YES Instruments on main switchboard 24 ammeters. 8 voltmeters. YES synchronising devices. For compound machines in parallel are the ammeters and reversed current protection devices connected on the pole opposite to the equaliser connection. YES

Earth Testing, state means provided TWO OHMMETERS - EARTH INDICATING SYSTEM USING TWO LAMPS.

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

make of fuses CROCE & FARINELLI-MANO are all fuses labelled. YES If circuit breakers are provided for the generators, at what overload do they operate. about 150% and at what current do the reversed current protective devices operate. about 10%

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. YES state maximum fall of pressure between bus bars and any point under maximum load. 3 Vots.

are the ends of all cables having a sectional area of 0.01 square inch and above provided with soldering sockets. YES 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. YES

Are cables in machinery spaces, galleys, laundries, etc., lead covered. YES or run in conduit. YES or of the "HR" type. YES State how the cables are supported or protected. ALL CABLES LEAD COVERED, STEEL WIRE BRAISED OR SPIRAL WIRE ARMOURED WHERE REQUIRED, WHERE EXPOSED TO RISK OF MECHANICAL DAMAGE PROTECTED BY STEEL SHEET PLATING

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 - WITH LEAD Refrigerated stores, 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



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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 YES, are they adequately ventilated YES.

state battery capacity in ampere hours 15 AH/H. 120 VOLTS

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 IN TWEEN DECK SPACE, ABOVE CARGO TANKS, & IN CARGO TANK ROOM: TERNIE PROOF LIGHTING FITTINGS and where are the controlling switches fitted IN SAFE POSITION. Are all fittings suitably ventilated YES.

Searchlight Lamps, No. of ONE, whether fixed or portable FIXED, are they of the carbon arc or of the filament type FILAMENT.

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 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 an Approved Cartridge Type YES, make of fuse CROCE & FARINELLI MILANO. 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. E.S.D., if fitted state make KELVIN HUGHES MARINE LTD. LONDON location of transmitter FRAME: 50/51. D.B.T. IN ENG. ROOM. 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				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN	TWO	ANSALDO-IRAN	550	230	2390	1000	STEAM TURBINE	ANSALDO-STABIL. MECC.
	ONE	GIORGIO-GENOVA	120	230	522	430	OIL ENGINE	
EMERGENCY ROTARY TRANSFORMER	TWO	CANT. RIU. DELL'A-DRIATICO.	40	115	348	3000	ELEC. MOTOR	CANT. RIU. DELL'A-DRIATICO.

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) M.	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or Nominal Dia. of Strands. Sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	550	6	500	2390	2800	36	V.R.	LEAD COVERED & ARMOURED.
" EQUALISER	-	3	500	-	-	18	V.R.	" "
"	120	2	250	522	560	30	V.R.	" "
"	-	1	250	-	-	15	V.R.	" "
EMERGENCY GENERATOR	60 HP	1	250	240	280	30	V.R.	" "
ROTARY TRANSFORMER: MOTOR	40	2	125	348	360	30	V.R.	" "

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or Nominal Dia. of Strands. Sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return) M.	INSULATION.	PROTECTIVE COVERING.
To POWER DISTRIB. BOARD in E.R. S13	2	160	432	426	16	V.R.	LEAD COVERED & ARMOURED OR STEEL WIRE BRAIDED.
" " " " S14	2	160	432	426	75	V.R.	" "
" " " " S15	2	250	540	564	25	V.R.	" "
" " " " S16	2	250	560	564	60	V.R.	" "
" " " " WORKSHOP S17	1	32	96	73	30	V.R.	" "
STEERING GEAR - STAB. LINE	1	100	150	155	95	V.R.	" "
" " " " PORT. LINE	1	100	150	155	95	V.R.	" "
To POWER DIST. BOARD - AFT ON DECK. QS 21	1	322	340	326	65	V.R.	" "
" " " " FORW. " QS 22	1	125	146	181	260	V.R.	" "
" SUB-DIST. BOARD - AFT ON DECK. S24/1	1	40	85	85	15	V.R.	" "
" " " " " S24/2	1	160	174	213	30	V.R.	" "

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

DESCRIPTION.	No. in Parallel per Pole.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) M.	INSULATION.	PROTECTIVE COVERING.
		Sectional Area or Nominal Dia. of Strands. Sq. mm.	In the Circuit.	Rule.				
WIRELESS	1	25	20	63	300	V.R.	LEAD COVERED, ARMOURED OR STEEL WIRE BRAIDED.	
NAVIGATION LIGHTS	1	14.5	10	45	324	V.R.	" "	
LIGHTING DIST. BOARD - AFT.	QS 24	1	125	140	181	52	V.R.	" "
" " " " FORW.	QS 25	1	200	110	246	260	V.R.	" "
" " " " E.R.	LM 27	1	16	34	49	50	V.R.	" "
" " " " E.R.	LM 28	1	16	33	49	40	V.R.	" "
" " " " E.R.	LM 29	1	25	38	63	64	V.R.	" "
" " " " E.R.	LM 30	1	25	44	63	4	V.R.	" "
" " " " B.R.	LM 31	1	25	44	63	73	V.R.	" "
" " " " B.R.	LM 32	1	25	50	63	45	V.R.	" "
SEARCH LIGHT.	1	50	27	99	490	V.R.	" "	
LIGHTING SUB-DIST. BOARD.	LNI-24/1	1	10	31	38	46	V.R.	" "
" " " " "	LNI-24/2	1	16	45	49	6	V.R.	" "
" " " " "	LNI-24/3	1	32	49	73	68	V.R.	" "
" " " " "	LNI-24/4	1	50	85	99	78	V.R.	" "
" " " " "	LNI-25/2	1	25	22	63	128	V.R.	" "
" " " " "	LNI-25/3	1	25	57	63	8	V.R.	" "
" " " " "	LNE-25/4	1	25	53	63	12	V.R.	" "

ALL IMPORTANT MOTORS TO BE ENUMERATED.

MOTOR CABLES.

DESCRIPTION.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) M.	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or Nominal Dia. of Strands. Sq. mm.	In the Circuit.	Rule.			
MAIN CIRCULATING PUMPS	2	86	1	315	330	326	60	V.R.	LEAD COVERED, ARMOURED OR STEEL WIRE BRAIDED.
LUBRIC. OIL CIRC. PUMPS	2	46	1	125	170	181	25	V.R.	" "
WET EXTRAC. PUMPS	2	30	1	80	109	143	40	V.R.	" "
FORCED DRAUGHT FANS	3	78	1	315	300	326	80	V.R.	" "
VENT. FANS for E.R. and B.R.	6	10	1	16	39	49	100	V.R.	" "
O.F. PRESSURE PUMPS	2	10	1	16	41	49	50	V.R.	" "
O.F. TRANSFER PUMP	1	26	1	50	100	100	20	V.R.	" "
GENERAL SERVICE PUMP	1	35	1	160	202	213	20	V.R.	" "
BULB, FIRE, BALLAST PUMP	1	30	1	40	79	85	30	V.R.	" "
TURNING GEAR	1	10	1	16	41	49	45	V.R.	" "
CIRC. PUMP for TURBODYNAMOS	2	19	1	40	73	85	25	V.R.	" "
EXT. PUMP for - ditto -	2	7.5	1	10	29	38	30	V.R.	" "
CIRC. PUMPS for AUX. CONDENS.	2	26	1	50	100	100	30	V.R.	" "
CONDENSATE TRANSFER PUMPS	2	10	1	16	40	49	30	V.R.	" "
LUBRIC. OIL PURIFIERS	2	2	1	2.5	9.5	15	50	V.R.	" "
AIR COMPRESSOR	1	27	1	63	104	116	70	V.R.	" "
AIR COMP. for AUT. CONTR. CONTROL	2	5	1	6.3	21	30	30	V.R.	" "
S.W. CIRCUL. PUMPS	2	20	1	40	80	85	40	V.R.	" "
EVAPORATOR PLANT PUMPS	4	1.9	1	2.5	9	15	50	V.R.	" "
- ditto -	1	4	1	4	17	22	8	V.R.	" "
STEERING GEAR	2	40	1	100	150	155	95	V.R.	" "
REFRIGERATOR COMPRESSORS	2	10	1	16	38	49	10	V.R.	" "
AIR CONDIT. SET. AFT.	1	40	1	100	148	155	15	V.R.	" "
- ditto - CENTRE.	1	20	1	40	75	85	6	V.R.	" "
SANITARY PUMPS	2	7	1	10	28	38	50	V.R.	" "
F.W. SERVICE PUMPS	2	3	1	4	12	22	50	V.R.	" "
DRINKING WATER PUMPS	2	2	1	2.5	8.4	15	50	V.R.	" "

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.

ANSALDO S. A.
CANTIERI NAVALI

H. Direttore

Electrical Contractors.

Date 18-2-55

[Handwritten signature]

COMPASSES.

Have the compasses been adjusted under working conditions.

YES

ANSALDO S. A.
CANTIERI NAVALI

H. Direttore

Builder's Signature.

Date 18-2-55

[Handwritten signature]

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.

5-11-54

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 ELECTRICAL EQUIPMENT OF THIS VESSEL HAS BEEN CONSTRUCTED AND FITTED UNDER SPECIAL SURVEY AND IS IN ACCORDANCE WITH THE APPROVED PLANS, SECRETARY'S LETTERS AND RULE REQUIREMENTS. THE WORKMANSHIP AND MATERIALS ARE GOOD. UPON COMPLETION THE PLANT WAS TRIED UNDER FULL WORKING CONDITION, THE INSULATION RESISTANCE TESTED AND ALL FOUND SATISFACTORY.

IN MY OPINION, THIS INSTALLATION IS ELIGIBLE FOR FULL CLASSIFICATION.

Total Capacity of Generators 1220 Kilowatts.

FIRST ENTRY FEE: 4% 489,000 = LESS 15% =

The amount of Fee ...	6% 415,650 =	When applied for,	9/3/1955
CAR FUND ...	4% 4,156 =	When received,	19
Travelling Expenses (if any)	6% 37,494 =		
REV. TAX ...	4% 13,719 =		

[Handwritten signature]
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUESDAY 26 APR 1955

Assigned See Rpt. 4.

15-2-55

Im. 11, 45 Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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