

Rpt. 13

No. 2590

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 4.4. 19 63 When handed in at Local Office 19 Port of SPLIT
 No. in Survey held at SPLIT Date, First Survey 26-9-63 Last Survey 27-12-1963
 Reg. Book (No. of Visits 16) 7099
92140 on the M.V. "WIENIAWSKI" Tons { Gross 7099
 Net 3770.3
 Built at SPLIT By whom built BRODOGRADILISTE "SPLIT" Yard No. 176 When built 1962
 Owners POLSKIE LINIE OCEANICZNE Port belonging to Gdynia
 Installation fitted by BRODOGRADILISTE "SPLIT" When fitted 1962

Is vessel equipped for carrying Petroleum in bulk - Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES Sub.Sig. - Radar YES
 Plans, have they been submitted and approved YES System of Distribution 3 PHASE 3 WIRE Voltage of Lighting 220 V
 Heating 220 V Power 380 V or A.C. Lighting 220 Power 380 V If A.C. state frequency 50 c/s

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 YES
 Are the generators arranged to run in parallel YES Is the compound winding connected to the negative or positive pole -

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing YES Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule YES Position of Generators ONE PORT SIDE AND TWO STBD. S. FWD. AND AFT ENGINE ROOM PLATFORM

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 E.R. PLAT FORWARD CENTRE

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 MELAMIN, 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 for each generator and arrangement of equaliser switches THREE-POLE AUTOMATIC CIRCUIT BREAKERS WITH OVERCURRENT UNDERVOLTAGE RELAY, OVERLOAD TIME RELAY AND REVERSE POWER RELAY

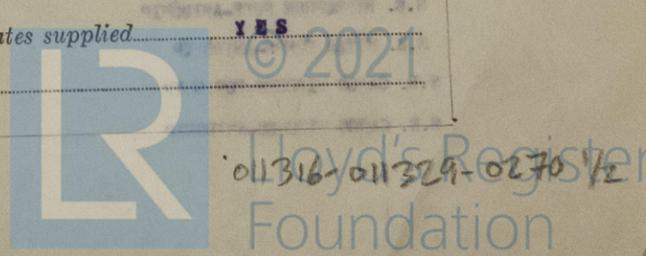
and the switch and fuse gear (or circuit breakers) for each outgoing circuit THREE-POLE CIRCUIT BREAKER WITH O/C RELAY, 3 POLE SWITCH WITH FUSES

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 2B ammeters 4 voltmeters 3 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 -- Preference Tripping, state if provided YES, and tested YES

Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an Approved Type YES make of fuses BROWN, ROVERI, are all fuses labelled YES If circuit breakers are provided for the generators, at what overload do they operate 15% 500A & 700A, and at what current do the reverse current protective devices operate 8% 35A & 49A 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 volts. 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 V.I.R. L.C.A., galleys V.I.R. L.C.A. and laundries V.I.R. L.C.A. State how the cables are supported or protected IN ENGINE ROOM, GANG WAYS AND IN OTHER PLACE CABLES ARE SUPPORTED ON PERFORATED STEEL PLATES; IN CARGO HOEDS CABLE ARE LED IN CLOSED IRON DUCTS

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 Refrigerated chambers, are the cables and fittings as per Rule YES Have refrigeration fan motors been constructed under survey YES and test certificates supplied YES Are the motors accessible for maintenance at all times YES



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... **YES**... Emergency Supply, state position
ACCUMULATION BATTERY LOCATED IN LOCKER ON BRIDGE DECK
 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... **YES**... state battery capacity in ampere hours... **145 Ah**... Where required to do so does it comply with 1948 International Convention... **YES**...
 Lighting, is fluorescent lighting fitted... **YES**... If so, state nominal lamp voltage... **220V**... and compartments where lamps are fitted...
ENGINE ROOM, GALLEY, PANTRIES
 Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... **YES**

Searchlights, No. of... **9**... whether fixed or portable... **FIXED**... are they of the carbon arc or of the filament type... **FILAMENT TYPE**
 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 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**...
 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... **KELVIN HUGHES**... location of transmitter and receiver... **PUMP ROOM BEIN. P.126-127 C.H.A.R.K.E.R.O.H.**
 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 | | | | TYPE | PRIME MOVER | MAKER |
|------------------------------|--------|--------------------|-------------------|-------|---------|----------------|--------|-----------------------------------|-------|
| | | | Kw. per Generator | Volts | Ampères | Revs. per Min. | | | |
| MAIN | 1 | SIEMENS-SHUCKER AG | 240 | 400 | 435 | 500 | V 6 M | SIEMENS-SHUCKER WERKE AG NURNBERG | |
| | 2 | " " | 336 | 400 | 606 | 500 | BY 6 M | " " | |
| EMERGENCY ROTARY TRANSFORMER | | | | | | | | | |

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 or sq. mm. | In the Circuit | Rule | | | |
| MAIN GENERATOR | 1 | 240 | 3 | 3 x 95 | 435 | 492 | 18 | VARNISHED CAMBRIC | L.C.S. |
| " " | 2 | 336 | 4 | 3 x 95 | 609 | 656 | 15 | " | " |
| EMERGENCY GENERATOR | | | | | | | | | |
| ROTARY TRANSFORMER: MOTOR | | | | | | | | | |
| " " GENERATOR | | | | | | | | | |

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.)

| 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 or sq. mm. | In the Circuit | Rule | |
| S.B. ENGINE ROOM FANS | P1 | 1 | 3 x 70 | 56,3 | 63 | 20 | V.I.R. |
| S.B. HEAVY OIL SERVICE PUMPS | P2 | 1 | 3 x 10 | 18,3 | 20 | 30 | " |
| S.B. TRANSFER PUMP | P3 | 1 | 3 x 35 | 36,6 | 40 | 20 | " |
| S.B. BOILER | P4 | 1 | 3 x 25 | 32 | 32 | 25 | " |
| S.B. SEPARATOR PLANT | P5 | 1 | 3 x 70 | 52,3 | 63 | 10 | " |
| S.B. SEPARATOR ELECT. HEATERS | P6 | 1 | 3 x 50 | 91,5 | 107 | 18 | VARNISHED CAMBRIC |
| S.B. AUXILIARY MACHINES | P7 | 1 | 3 x 50 | 47,8 | 51 | 28 | V.I.R. |
| S.B. Hydraphor pumps - AFT | P8 | 1 | 3 x 50 | 47 | 51 | 20 | " |
| S.B. WATER PUMPS AFT | P9 | 1 | 3 x 70 | 112 | 135 | 25 | VARNISHED CAMBRIC |
| S.B. WORKSHOP | P10 | 1 | 3 x 16 | 20,6 | 24 | 15 | V.I.R. |
| S.B. REFRIGERATING PLANT | P11 | 1 | 3 x 25 | 31 | 32 | 35 | " |
| S.B. HYDROPHOR PUMP-AMIDSHIP | P12 | 1 | 3 x 35 | 39,3 | 40 | 35 | " |
| S.B. WATER PUMPS-AMIDSHIP | P13 | 1 | 3 x 50 | 107 | 107 | 80 | VARNISHED CAMBRIC |
| S.B. CARGO WINCHES-FORESHIP | P14 | 1 | 3 x 95 | 137,5 | 164 | 100 | " |
| S.B. CARGO WINCHES-AMIDSHIP | P15 | 1 | 3 x 95 | 137,5 | 164 | 60 | " |

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

| DESCRIPTION | No. in Parallel per Pole | Sectional Area or No. and Dia. of Strands or sq. mm. | MAXIMUM CURRENT IN AMPERES | | APPROX. LENGTH (lead plus return) FEET | INSULATION | PROTECTIVE COVERING |
|--|--------------------------|--|----------------------------|-------|--|------------|---------------------|
| | | | In the Circuit | Rule | | | |
| S.B. CARGO WINCHES - AFT | P16 | 1 | 3 x 95 | 137,5 | 164 | 25 | VARNISHED CAMBRIC |
| S.B. HOIST PANS | P17 | 1 | 3 x 35 | 33,4 | 40 | 80 | V.I.R. |
| S.B. HL PRESS PANS - AFT | P18 | 1 | 3 x 50 | 96,5 | 107 | 40 | VARNISHED CAMBRIC |
| S.B. CALDER | P19 | 1 | 3 x 95 | 64 | 76 | 40 | V.I.R. |
| S.B. HEATERS - AMIDSHIP | P20 | 1 | 3 x 70 | 50 | 63 | 60 | V.I.R. |
| S.B. HEATERS - AMIDSHIP | P21 | 1 | 3 x 70 | 43 | 63 | 60 | " |
| S.B. HL PRESS PANS AMIDSHIP | P22 | 1 | 3 x 50 | 43,5 | 51 | 90 | " |
| S.B. GREAT WINCHES | P23 | 1 | 3 x 25 | 32 | 32 | 50 | " |
| S.B. PANTRY AFT | P24 | 1 | 3 x 16 | 21 | 24 | 50 | " |
| S.B. PANTRY AMIDSHIP | P25 | 1 | 3 x 10 | 16 | 20 | 110 | " |
| S.B. REFRIGERATED CARGO | P26 | 2 | 3 x 70 | 225 | 270 | 75 | VARNISHED CAMBRIC |
| S.B. REFRIGERATED CARGO | P27 | 2 | 3 x 70 | 246 | 270 | 75 | " |
| BATTERY CHARGING BOARD | B1 | 1 | 3 x 4 | 9,2 | 16 | 60 | V.I.R. |
| MAIN LIGHTING SWITCH BOARD | L1 | 1 | 3 x 70 | 125 | 135 | 25 | VARNISHED CAMBRIC |
| S.B. LIGHTING ENGINE ROOM | L1A | 1 | 3 x 6 | 11 | 15 | 25 | " |
| S.B. " " " | L1B | 1 | 3 x 6 | 11 | 15 | 25 | V.I.R. |
| S.B. " " " | L1C | 1 | 3 x 6 | 11 | 15 | 25 | " |
| S.B. " " " | L1D | 1 | 3 x 6 | 11 | 15 | 25 | " |
| S.B. " " " | L1E | 1 | 3 x 6 | 11 | 15 | 25 | " |
| S.B. " " " | L1F | 1 | 3 x 6 | 11 | 15 | 25 | " |
| S.B. " " " | L1G | 1 | 3 x 6 | 11 | 15 | 25 | " |
| S.B. " " " | L1H | 1 | 3 x 6 | 11 | 15 | 25 | VARNISHED CAMBRIC |
| LIGHTING SWITCHBOARD AMIDSHIP | L2 | 1 | 3 x 35 | 90 | 85 | 80 | " |
| S.B. LIGHTING NAV. & UPPER BRIDGE DECK | L2A | 1 | 3 x 6 | 11 | 15 | 12 | V.I.R. |
| S.B. " " " | L2B | 1 | 3 x 6 | 11 | 15 | 6 | " |
| S.B. " " " | L2C | 1 | 3 x 10 | 15 | 12 | 14 | " |
| S.B. " " " | L2D | 1 | 3 x 4 | 7 | 12 | 30 | " |
| S.B. " " " | L2E | 1 | 3 x 4 | 7 | 12 | 30 | " |
| S.B. " " " | L2F | 1 | 3 x 6 | 11 | 15 | 30 | " |
| S.B. " " " | L2G | 1 | 3 x 6 | 11 | 15 | 14 | " |
| S.B. " " " | L2H | 1 | 3 x 6 | 11 | 15 | 8 | " |
| S.B. " " " | L2I | 1 | 3 x 6 | 11 | 15 | 10 | " |
| S.B. NAVIGATING LIGHTS | N1 | 1 | 2 x 2,5 | 0,5 | 9 | 20 | " |
| SIZE CHANNEL SEARCHLIGHTS | | 1 | 2 x 10 | 14 | 28 | 80 | " |

MOTOR CABLES

| ALL IMPORTANT MOTORS TO BE ENUMERATED | No. | B.H.P. | 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 or sq. mm. | In the Circuit | Rule | |
| WINDLASS | 1 | 34 | 3 x 50 | 88 | 107 | 140 | VARNISHED CAMBRIC |
| WARPING WINCH | 1 | 34 | 3 x 50 | 88 | 107 | 140 | " |
| SHIPPING GEAR | 2 | 20 | 3 x 50 | 34 | 51 | 85 | V.I.R. |
| COMPRESSOR | 2 | 60 | 3 x 50 | 97 | 102 | 25 | " |
| M.E. COOLING P. | 2 | 34,5 | 3 x 50 | 51 | 51 | 20 | " |
| M.E. SEA V. COOLING P. | 2 | 34,5 | 3 x 50 | 51 | 51 | 20 | " |
| M.E. LUBRICATING OIL PUMP | 2 | 11,6 | 3 x 95 | 164 | 164 | 18 | VARNISHED CAMBRIC |
| HEAVY OIL BOOSTER PUMP | 2 | 3,3 | 3 x 2,5 | 5,6 | 10 | 6 | V.I.R. |
| HEAVY OIL SERVICE PUMP | 2 | 2,9 | 3 x 1,5 | 3,6 | 5 | 6 | " |
| FUEL OIL TRANSFER PUMP | 2 | 18,5 | 3 x 25 | 29 | 32 | 6 | " |
| BOILER FEED WATER PUMP | 2 | 5 | 3 x 2,5 | 5,3 | 10 | 30 | " |
| BOILER WATER CIRC. PUMP | 2 | 7 | 3 x 4 | 10,5 | 12 | 8 | " |
| HEAVY OIL PURIFIER | 2 | 10,6 | 3 x 10 | 18 | 20 | 10 | " |
| HEAVY OIL CLARIFIER | 2 | 7,5 | 3 x 6 | 11,5 | 15 | 10 | " |
| LUBRICATING OIL SEPARATOR | 2 | 7,5 | 3 x 6 | 11,5 | 15 | 40 | " |
| DIESEL OIL SEPARATOR | 1 | 5,5 | 3 x 2,5 | 6 | 10 | 10 | " |
| SHIPPING GEAR | 1 | 10,6 | 3 x 10 | 18,9 | 20 | 30 | " |
| EVAPORATOR BRINE PUMP | 1 | 8,2 | 3 x 6 | 12 | 15 | 40 | " |
| " " DISTILLATE PUMP | 1 | 6,2 | 3 x 4 | 10,1 | 12 | 40 | " |
| " " AIR PUMP | 1 | 6,7 | 3 x 4 | 10,4 | 12 | 40 | " |
| S.W. & P.W. CIRCULATING PUMP | 1 | 17 | 3 x 25 | 26 | 32 | 8 | " |
| GENERAL SERVICE PUMP | 1 | 20 | 3 x 95 | 74 | 76 | 8 | " |
| BELGE PUMP | 2 | 26 | 3 x 35 | 38 | 40 | 20 | " |
| BELFAST PUMP | 2 | 31 | 3 x 50 | 44 | 51 | 25 | " |
| ENGINE ROOM FAN | 4 | 8,2 | 3 x 6 | 11,4 | 15 | 35 | " |
| HL PRESS COMPRESSOR | 1 | 40 | 3 x 70 | 63 | 63 | 30 | " |
| HL PRESS COMPRESSOR | 1 | 20 | 3 x 25 | 28,5 | 32 | 12 | " |
| S.W.HI. PRESS PUMP | 1 | 10 | 3 x 16 | 24 | 24 | 40 | " |
| S.W.HI. PRESS PUMP | 1 | 4 | 3 x 2,5 | 6,3 | 10 | 25 | " |
| VEGETABLE OIL PUMP | 1 | 51 | 3 x 35 | 72 | 85 | 15 | VARNISHED CAMBRIC |
| REFRIG. CARGO COMPRESSOR | 4 | 55 | 3 x 35 | 78,2 | 85 | 12 | " |
| " " COOL.W. PUMP | 2 | 14 | 3 x 16 | 20 | 24 | 30 | V.I.R. |
| " " BRINE PUMP | 4 | 10 | 3 x 10 | 16 | 20 | 30 | " |
| " " FAN | 4 | 11 | 3 x 10 | 17,5 | 20 | 18 | " |
| " " FAN | 2 | 4 | 3 x 2,5 | 7 | 10 | 30 | " |

NOTE.—Use Rpt. 43 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.

Kusturkovic Prago Electrical Contractors. Date.....

COMPASSES

Have the compasses been adjusted under working conditions..... **YES**

Kusturkovic Prago 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..... **YES** If so, state name of vessel..... **R. V. NOWOLJEWSKI, R. V. SZYMANOWSKI**

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

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.).....

THE ELECTRICAL EQUIPMENT OF THIS VESSEL HAS BEEN INSTALLED UNDER SPECIAL SURVEY IN ACCORDANCE WITH THE RULES FOR ELECTRICAL EQUIPMENT, APPROVED PLANS AND SECRETARY'S LETTERS. THE MATERIAL AND WORKMANSHIP ARE GOOD.

ON COMPLETION, THE INSTALLATION WAS EXAMINED UNDER FULL WORKING CONDITION THE CIRCUIT MEGGER TESTED, GENERATORS PARALLELED, REVERSE CIRCUIT TRIPS, OVERLOADED TRIPS ALL TESTED AND FOUND IN ORDER. THE GOVERNORS WERE TRIED UNDER FULL LOAD AND FOUND SATISFACTORY.

THE EQUIPMENT IS IN OUR OPINION SUITABLE FOR A VESSEL TO BE CLASSED WITH THIS SOCIETY.

Total Capacity of Generators..... **9.12** Kilowatts.

The amount of Fee ... **£119-0-10** : When applied for,
 and Din. **249.988.-** 19.....

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

F. Blgray
 Surveyor to Lloyd's Register of Shipping
 (F.B. GRAY)

FRIDAY 14 JUN 1963

Committee's Minute.....

Assigned *See Rpt 1*.....

3m.5.60—Transfer. (MADE AND PRINTED IN ENGLAND) (The Surveyors are requested not to write on or below the space for Committee Minute.)

