

Rpt. 13.

No. 48057

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 30 JAN 1952

Date of writing Report 7th JANUARY 1952 When handed in at Local Office 28.1. 1952 Port of GLASGOW
No. in Survey held at GREENOCK Date, First Survey 7th NOVEMBER Last Survey 21st DECEMBER 1951
Reg. Book. (No. of Visits 6)

35992 on the M.V. 'HOLMGAR' Tons { Gross... Net...

Built at PORT GLASGOW By whom built W^m HAMILTON & CO LTD Yard No. 486 When built 1951

Owners STAMERS REDERI A/S Port belonging to BERGEN

Installation fitted by SUNDERLAND FORGE & ENGINEERING CO LTD When fitted 1951

Is vessel equipped for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES G.Y.C. YES Sub.Sig. YES Radar ONLY

Plans, have they been submitted and approved YES System of Distribution TWO WIRE Voltage of Lighting 110

Heating 110 Power 110 D.C. or A.C., Lighting D.C. Power D.C. 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 YES Generators, are they compound wound YES, and level compounded under working conditions YES

if not compound wound state distance between generators and from switchboard 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 STEAM SETS - ON FLAT, PORT SIDE OF ENGINE ROOM DIESEL SET - PORT SIDE OF 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 ADJACENT TO STEAM SETS

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 SINDANYO, if of synthetic insulating

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 and arrangement of equaliser switches 400 AMP TRIPLE POLE CIRCUIT BREAKERS FITTED WITH OVERLOAD

AND REVERSE CURRENT TRIPS

and the switch and fuse gear (or circuit breakers) for each outgoing circuit DOUBLE POLE KNIFE PATTERN SWITCHES

WITH FUSES

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

ammeters THREE voltmeters 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

EARTH LAMPS

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

make of fuses SIEMENS, are all fuses labelled YES If circuit breakers are provided for the generators, at what

overload do they operate 150% FULL LOAD, and at what current do the reversed current protective devices operate 10% - 15% F.L.

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 6.2 VOLTS, 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

or of the "HR" type YES State how the cables are supported or protected MAINS L.C.A.B. CABLES IN GALVANISED

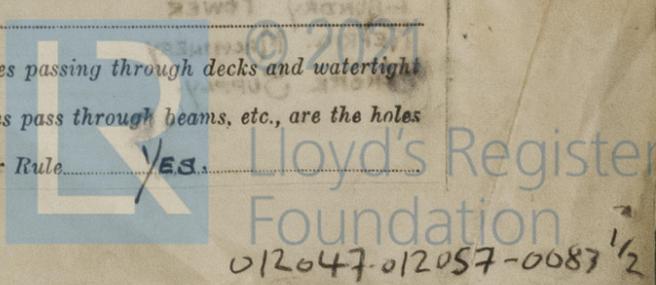
PIPES MACHINERY SPACE L.C.A.B. CABLES CLIPPED TO TRAY OR STEELWORK ACCOMMODATION

L.C. CABLE CLIPPED TO WOODWORK

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



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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

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...

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... **CENTRECASTLE SPACE - FLAMEPROOF FITTINGS. PUMPROOMS - IN ACCORDANCE WITH RULE REQUIREMENTS**... and where are the controlling switches fitted... **IN ACCOMMODATION SPACE**... Are all fittings suitably ventilated... **YES**...

Searchlight Lamps, No. of... **1**... whether fixed or portable... **YES**... are they of the carbon arc or of the filament type... **YES**...

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**...

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... **SIEMENS**... 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 maker... **KELVIN HUGHES**... location of transmitter... **FRAME SPACE 37-38 P.** and receiver... **FRAME SPACE 39-40 STRD**...

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 ...	2	SUNDERLAND FORGE & ENG. CO. LTD.	40	110	364	600	STEAM	SUNDERLAND FORGE & ENG. CO. LTD.
EMERGENCY ...	1	SUNDERLAND FORGE & ENG. CO. LTD.	40	110	364	600	DIESEL	RUSTON & HORNERBY.

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 or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	40	2	19/083	364	404	112	V.C.	L.C.A.B.
" " EQUALISE ...		1	19/083	-	202	56	V.C.	L.C.A.B.
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
MIDSHIP LIGHTING & POWER PANEL	2	37/103	290	816	640	V.C.	LCAB.
CREW AFT LIGHTING & POWER BOARD.	1	19/083	148	202	180	V.C.	LCAB.
ENGINE ROOM LIGHTING SECTION.	1	19/064	41	143	40	V.C.	LCAB.
ENGINE ROOM AUXILIARY SECTION N°1	1	7/064	50	80	220	V.C.	LCAB.
ENGINE ROOM AUXILIARY SECTION N°2	1	19/064	86	143	84	V.C.	LCAB.
ENGINE ROOM AUXILIARY SECTION N°3	1	7/064	62	80	40	V.C.	LCAB.
ENGINE ROOM AUXILIARY SECTION N°4	1	7/064	48	80	222	V.C.	LCAB.
LAUNDRY POWER	1	19/064	94	143	320	V.C.	LCAB.
REFRIG. MACHINERY	1	7/064	56	80	312	V.C.	LCAB.
SHORE SUPPLY.	1	31/103	290	408	300	V.C.	LCAB.

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.			
WIRELESS	1	7/064	15	80	136	V.C.	L.C.
NAVIGATION	1	7/064	30	80	128	V.C.	LC.
UPPER BRIDGE LT ⁹ D.B.	1	7/064	20	31	80	RUBBER	LC.
BRIDGE DECK LT ⁹ D.B. PORT.	1	7/064	15	31	100	RUBBER	LC.
FORECASTLE D.B.	1	7/064	4	31	312	RUBBER	LCAB.
FLOODLIGHT D.B.	1	7/064	15	31	128	RUBBER	LC
POOP DECK LT ⁹ D.B. STAB.	1	7/064	15	31	144	RUBBER	LC
UPPER DECK LT ⁹ D.B. PORT	1	7/064	15	31	168	RUBBER	LC
UPPER DECK LT ⁹ D.B. AFT.	1	7/064	11	31	284	RUBBER	LC
ENGINE ROOM LT ⁹ D.B. TOP STAB	1	7/064	9	31	300	RUBBER	LCAB.
ENGINE ROOM LT ⁹ D.B. BOTTOM PORT.	1	7/064	10	31	24	RUBBER	LCAB.
MIDSHIP BOILER	1	7/064	27.3	31	112	RUBBER	LC
GALLEY RANGE	1	19/064	126	143	288	V.C.	LCAB.
GALLEY AND PANTRY POWER D.B.	1	7/064	49	80	316	V.C.	LCAB.
BOAT WINCH PLUGS.	1	7/064	35	80	172	V.C.	LCAB.

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.
STEERING GEAR.	1	25	19/083	194	202	270	V.C. LCAB.
DOMESTIC REFRIG COMP.	1	5	7/064	42	80	260	V.C. LCAB.
AFT ACCOM. VENT FANS.	2	3.75	7/064	31	80	72	V.C. LC.
MID. ACCOM. VENT FANS.	2	1.45	7/064	13.5	31	150	RUBBER LC.
ENGINE ROOM VENT FANS.	2	2.75	7/064	25	31	76	RUBBER LCAB.
PURIFIERS.	3	3.5	7/064	28.7	31	24	RUBBER LCAB.
F.W. AND SANITARY PUMPS.	3	2	7/064	16	31	84	RUBBER LCAB.

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.

p.p. THE SUNDERLAND FORGE & ENG. CO. LTD.,

J. B. Slings Electrical Contractors. Date 14.1.1952

COMPASSES.

Have the compasses been adjusted under working conditions. YES

Horace Willard Builder's Signature. Date 21 Jan 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. 23rd OCTOBER 1951

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 installation of this vessel has been fitted on board under Special Survey tested under working conditions and found satisfactory. The quality of materials and workmanship is good.

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100	100	100	100	100	100	100	100	100	100

Noted 02/11 6.2.52

Total Capacity of Generators 120 Kilowatts.

The amount of Fee ... £ 60 : 0

When applied for, 25. Jan 52

When received, 19.

Travelling Expenses (if any) £ : 18 :

J. M. Sardinat Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 29 JAN 1952

Assigned See Grck. F.E. Machy Rpt. 24558

2m. 9. 40. - Transfer. (MADE AND PRINTED IN ENGLAND.) (The Surveyors are requested not to write on or below the space for Committee's Minute.)

