

# REPORT ON ELECTRICAL EQUIPMENT

No. 79856

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Writing Report 27<sup>th</sup> January 1953 When handed in at Local Office 9.2.1953 Received at London Office

2-F19 Survey held at GLASGOW Date, First Survey 16<sup>th</sup> Sept. 1952 Last Survey 19<sup>th</sup> January 1953 (No. of Visits 10)

on the M.V. 'CLYDEFIELD'

at GLASGOW By whom built HARLAND & WOLFF, LTD Yard No. 14366 Tons { Gross... Net... When built...

HUNTING & SON, LTD Port belonging to NEWCASTLE

ion fitted by HARLAND & WOLFF, LTD

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

ve they been submitted and approved. YES System of Distribution TWO WIRE Voltage of Lighting 110

Power 110 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency

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

Generators, are they compound wound. YES, and level compounded under working conditions. YES

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

machines 100 kw. and over been inspected by the Surveyors during manufacture and testing. YES Have certificates of test for machines

kw. been supplied and the results found as per Rule. YES Position of Generators STARBOARD SIDE OF

GENERATORS. ventilation in way of generators satisfactory. YES are they clear of inflammable material and protected from mechanical injury and

from water, steam and oil. YES Switchboards, where are main switchboards placed. ON PLATFORM ABOVE

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

oil. YES, what insulation is used for the panels. SANDANYO, if of synthetic insulating

it an Approved Type. YES, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as

Is the construction as per Rule, including locking of screws and nuts. YES Description of Main Switchgear

generator and arrangement of equaliser switches. 500 AMP OR 200 AMP TRIPLE POLE CIRCUIT BREAKER FITTED

OVERLOAD AND REVERSE CURRENT TRIPS.

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

FUSES.

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

Two voltmeters synchronising devices. For compound machines in parallel are the ammeters and reverse current

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

WITH LAMPS. Preference Tripping, state if provided. No, and tested.

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

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

they operate. 150% FULL LOAD CURRENT, and at what current do the reverse current protective

rate. 10% - 15% FULL LOAD CURRENT. Cables, are they insulated and protected as per Rule. YES,

than as per Rule are they of an Approved Type. YES, state maximum fall of pressure between bus bars and any point

num load. 6 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends. YES

cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical

INSTRUMENTS. are any cables laid under machines or floorplates. YES, if so, are they adequately protected. YES State

s (if in conduit this should also be stated) in machinery spaces. MINERAL-INSULATED C.S., galleys. L.C.B.

State how the cables are supported or protected. MAINS - L.C.B. CABLES

TO PLATE WITH COVER-PLATE FITTED. MACHINERY SPACE - M.I.C.S. CABLES CLIPPED

WELWORK OR TRAY. ACCOMMODATION. L.C.B. CABLES CLIPPED TO WOODWORK.

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

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

registered. YES Refrigerated chambers, are the cables and fittings as per Rule.

ation fan motors been constructed under survey. YES and test certificates supplied.

rs accessible for maintenance at all times. YES

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule YES Emergency Supply, state position YES

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 YES Where required to do so does it comply with 1948 International Convention YES

Lighting, is fluorescent lighting fitted NO If so, state nominal lamp voltage YES and compartments where lamps are fitted YES

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 YES, 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

Lightning Conductors, where required are they fitted as per Rule YES

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 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 all cables lead covered as per Rule YES

E.S.D., if fitted state maker SUBMARINE SIGNAL location of transmitter and receiver FRAME SPACE 50-51

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.	
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.		MAKER.	MAKER.
MAIN	2	BRITISH THOMSON-HOUSTON C.L. <sup>TD</sup>	55	110	500	600	STEAM	BELLISS & MORCOM.	
	1	CROMPTON PARKINSON	20	110	182	650	DIESEL	RUSSELL & NEWBERRY.	
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. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	2	55	2	6/1093	500	576	72	RUBBER	L.C.B.
" " EQUALISER	1		1	6/1093	-	288	36	RUBBER	L.C.B.
MAIN GENERATOR	1	20	1	37/093	182	214	60	RUBBER	L.C.B.
" " EQUALISER	1		1	37/072	-	152	30	RUBBER	L.C.B.
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR									
" " GENERATOR									

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	Kw.	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 SECTION BOARD	1		1	6/103	290	332	632	RUBBER	L.C.A.B.
AFT ACCOMMODATION BOARD	1		1	19/083	89	118	136	RUBBER	L.C.A.B.
ENGINE ROOM LIGHTING BOARD	1		1	04	75	150	172	M.I.	C.S.
GALLEY AND PANTRY EQUIPMENT BOARD	1		1	19/083	89	118	136	RUBBER	L.C.A.B.
DOMESTIC REFRIG. PLANT.	1		1	19/064	50	83	116	RUBBER	L.C.A.B.
WORKSHOP BOARD	1		1	0145	46	90	159	M.I.	C.S.
PURIFIER BOARD.	1		1	04	57.6	150	190	M.I.	C.S.
ENGINE ROOM AND BOILER ROOM VENT FAN BOARD	1		1	1	160	260	232	M.I.	C.S.
SHORE SUPPLY.	1		1	2	-	400	202	M.I.	C.S.

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

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	19/083	20	118	1020	RUBBER	L.C.A.B.
NAVIGATION AND WHEELHOUSE BOARDS.	1	7/044	16	31	180	RUBBER	L.C.B.
UPPER DECK LT <sup>9</sup> D.B.	2	7/044	25	31	132	RUBBER	L.C.B.
LOWER BRIDGE DECK LT <sup>9</sup> D.B.	3	7/044	30	31	60	RUBBER	L.C.B.
LOWER BRIDGE DECK LT <sup>9</sup> D.B.	4	7/044	24	31	60	RUBBER	L.C.B.
AFT ACCOMMODATION POOP DECK LT <sup>9</sup> D.B.	8	7/036	17	24	190	RUBBER	L.C.B.
AFT ACCOMMODATION POOP DECK AFT. LT <sup>9</sup> D.B.	9	7/036	14	24	200	RUBBER	L.C.B.
AFT ACCOMMODATION LT <sup>9</sup> D.B.	12	7/036	18	24	280	RUBBER	L.C.B.
AFT ACCOMMODATION LT <sup>9</sup> D.B.	14	7/036	5	24	50	RUBBER	L.C.B.
FORWARD LT <sup>9</sup> D.B.	6	7/044	8	31	180	RUBBER	L.C.A.B.
ENGINE ROOM LT <sup>9</sup> D.B.	16	01	28	55	200	M.I.	C.S.
ENGINE ROOM LT <sup>9</sup> D.B.	17	01	26	55	120	M.I.	C.S.
GALLEY AND PANTRY BOARD.	10	19/052	39	64	120	RUBBER	L.C.B.
GALLEY AND PANTRY BOARD.	11	19/052	57	64	240	RUBBER	L.C.B.
MID. PANTRY D.B.	5	19/052	48	64	100	RUBBER	L.C.B.
GYRO COMPASS.	1	7/029	8	15	180	RUBBER	L.C.B.
SUEZ CANAL PROJECTOR (Wiring Only)	1	19/052	30	64	880	RUBBER	L.C.A.B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	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.
TURNING GEAR	1	25	1	1	192	260	320	M.I.	C.S.
DOMESTIC REFRIG.	1	5	1	7/064	42	46	90	RUBBER	L.C.B.
ENGINE ROOM VENT FANS	4	5	1	19/044	40	53	140	RUBBER	L.C.A.B.
VAPOUR EXTRACTION FAN.	1	4.5	1	0225	38	110	300	M.I.	C.S.
ACCOMMODATION VENT FAN	3	4	1	7/064	33.6	46	420	RUBBER	L.C.A.B.
PURIFIERS.	2	3.5	1	01	28.7	55	80	M.I.	C.S.

NOTE.—Use Rpt. 13 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.

**HARLAND AND WOLFF, LIMITED**  
*Tom V. Shuck* Electrical Contractors. Date 29<sup>th</sup> January, 1953  
DIRECTOR

COMPASSES.

Have the compasses been adjusted under working conditions... YES  
**HARLAND AND WOLFF, LIMITED**  
*Tom V. Shuck* Builder's Signature. Date 29<sup>th</sup> January, 1953  
DIRECTOR

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 26.1.52 : 6.11.52.

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 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.

Table with multiple columns and rows, containing technical specifications and data, mostly illegible due to bleed-through from the reverse side.

*SKM 9/4/53*  
*#*  
*13.2.53*

2m.8.50.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

*Noted 23-2-53*  
Total Capacity of Generators... 130 Kilowatts.

The amount of Fee ... £ 61 : 10 : 0 When applied for, 10 FEB 1953  
When received,  
Travelling Expenses (if any) £ : ✓ : 19

*J. M. Gardiner*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute... **GLASGOW 10 FEB 1953**

Assigned... **SEE ACCOMPANYING MACHINERY REPORT**