

Rpt. 13.

No. 76000

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.

Date of writing Report 28 Aug. 1950 When handed in at Local Office 29. 8 1950 Port of GLASGOW.
 No. in Survey held at CLYDEBANK. Date, First Survey 3-5-50 Last Survey 14 Aug. 1950
 Reg. Book. (No. of Visits 7)

95005. on the M. V. OTTAWA. Tons Gross. Net.

Built at CLYDEBANK By whom built JOHN BROWN & CO. LTD. Yard No. 654. When built 1950.

Owners UNITAS INC. Port belonging to PANAMA

Installation fitted by JOHN BROWN & CO. LTD. When fitted 1950

Is vessel 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

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 - 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 - Have certificates of

test for machines under 100 kw. been supplied Yes and the results found as per Rule Yes

Position of Generators in 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 near generators

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 Insidanto 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 - 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

Triple pole circuit breaker (Kind pole acting as equaliser) fitted with overload

reversal and under voltage trips

and the switch and fuse gear (or circuit breakers) for each outgoing circuit

Midship Switchboard supplies D.P. circuit breaker fitted with overload trips

remainder of circuits D.P. Switch and fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule - Instruments on main switchboard 3

ammeters 3 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 2cd, are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate 50%, and at what current do the reversed current protective devices operate 15% full load

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 -

state maximum fall of pressure between bus bars and any point under maximum load 6.584, 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 Yes, 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 - State how the cables are supported or protected Main on fire and oil gangway

re LCAB and rick LCAB clipped to steel tray under gangway Machinery spaces

re LCAB and rick LCAB and rick LC, clipped to steel tray and steel work

Accommodation and crew spaces rick LC, clipped to steel and woodwork

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

bulkheads provided with duck 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 -

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

Navigation Lamps, are they separately wired. *fe* controlled by separate double pole switches and fuses. *fe* Are the switches and fuses in a position accessible only to the officers on watch. *fe* is an automatic indicator fitted. *fe* Is an alternative supply provided. *fe*

Secondary Batteries, are they constructed and fitted as per Rule. *-* are they adequately ventilated. *-* 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. *fe*

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. *fe* if so, how are they protected. *Pump room kept in accordance to Rule requirements.*

and where are the controlling switches fitted. *Bridge Accommodation.* Are all fittings suitably ventilated. *fe*

Searchlight Lamps, No. of. *Leaving only for Star Pro.* are they of the carbon arc or of the filament type. *-*

Heating and Cooking, is the general construction as per Rule. *fe* are the frames effectually earthed. *fe* are heaters in the accommodation of the convection type. *fe* 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. *fe*

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. *-* 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. *fe*

Control Gear and Resistances, are they constructed and fitted as per Rule. *fe* Lightning Conductors, where required are they fitted as per Rule. *-*

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. *fe* are all fuses of an Approved Cartridge Type. *fe* make of fuse. *Semen Ltd* Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. *fe* Are the cables lead covered as per Rule. *fe*

E.S.D., if fitted state maker. *Submarine Signal Co* location of transmitter. *frame 169/170 Star* and receiver. *frame 169/170 Port*

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations. *fe*

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. *fe*

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.	Laurance. Scott.	90.	110.	818.	500.	Steam.	Peter Arrhenlund Ltd.
	1.	B.T.H.	60.	110.	530.	1000.	oil.	J. & H. Mc. Lennan Ltd.
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (feet 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	90.	2	61/093	818.	984	36.	yl.	L.C.A.B.
"		1	61/093	-	492.	18.	"	"
"								
"	60.	2	37/083	530.	628	66.	"	"
"		1	37/083	-	314.	33	"	"
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
"								
"								

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

(from Main Switchboard)

DESCRIPTION.								
Midship. Switchboard.	1	61/093	300.	492	550.	yl.	L.C.A.B.	
Cooking. Equip. PANTRY.	1	19/052	68	110	200			
Slips Galley.	1	19/083	180	202	240			
Engine & Boiler Rm. Fans.	1	19/083	120	202	200			
Engine Room Aux. Ford	1	19/083	152	202	50			
"	1	19/083	148	202	150			
Refrig. Machinery.	1	19/064	67	143	250			
Boat. Winches.	1	19/052	79	110	100			
Ventilation.	1	19/083	106	202	350			
Lighting & Cabin Fans. Aft.	1	19/083	160	202	180			
Lighting in Engine & B.C. Room.	1	19/083	113	202	20			
Workshop. Machinery.	1	19/052	94	110	150			

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

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (feet 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.			
Circuits from Main S.W. continued							
Water. Heaters and Laundry.	1	19/052	108.	110	110		
Laundry. Washing Machine	1	19/064	102	143	290		
Lighting up. Heater. Boiler Room	1	19/064	92	143	200		
Circuits from Sub. Switchboard:-							
Lighting & Cabin Fans.	1	37/072	195	260	30		
Cooking Equip.	1	19/052	89	110	60		
Water. Heaters.	1	19/052	82	110	60		
Boat Winches.	1	19/052	79	110	30		
Ventilation & Radar.	1	19/052	54	110	30		
Searchlight.	1	19/052	27	110	500		
Navigation. etc.	1	7/052	25	37	90		
Wireless.	1	7/064	18	46	80		

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Fuel. Valve. Cooling Pump	2	2	1	7/044	17.4	31.	40.	yl.
Priming Pump	1	3.5	1	7/052	30.	37.	100	"
Oil. Separator.	3	3.5	1	7/052	28.7	37.	160	"
Engine Room. Vent. Fan.	5	2.9	1	7/064	24	46.	75.	"

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.

John Brown & Company, Limited.

Secretary.

Electrical Contractors.

Date 29 AUG 1950

COMPASSES.

Have the compasses been adjusted under working conditions.

John Brown & Company, Limited.

Secretary.

Builder's Signature.

Date 29 AUG 1950

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

Is this installation a duplicate of a previous case.

If so, state name of vessel.

Quarrel Smith. M.V. VIK Foss.

Plans. Are approved plans forwarded herewith.

If not, state date of approval.

22-11-48

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

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 fitted on board under special survey, tested under working conditions and found satisfactory. The materials and workmanship are good. During fitting out of the vessel a number of extra lights and appliances were installed at owners request. The cables were modified as found necessary and comply with Rules requirements.

Noted SW 14/9/50.

Total Capacity of Generators 240 Kilowatts.

The amount of Fee ...

£ 76.

When applied for,

30 AUG 1950

When received,

19

Travelling Expenses (if any) £

Committee's Minute

GLASGOW 30 AUG 1950

Assigned

SEE ACCOMPANYING MACHINERY REPORT

Surveyor to Lloyd's Register of Shipping.



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