

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

25 DEC 1954

Date of writing Report 29<sup>th</sup> Nov. 54 When handed in at Local Office 30<sup>th</sup> Nov 1954 Received at London Office  
 No. in Survey held at Portsmouth Date, First Survey 30.7.53 Last Survey 21<sup>st</sup> Sept 1954  
 Reg. Book. (No. of Visits 6)  
 on the Trawler "BIRCH"  
 Built at Beverley By whom built Cook, Wilton & Gemmell Yard No. When built 1940  
 Owners VOSPERS LTD Port belonging to  
 Installation fitted by Vospers Ltd. When fitted 1954  
 Is vessel equipped for carrying Petroleum in bulk No Is vessel equipped with D.F. E.S.D. Gy.C. Sub.Sig. Radar

Plans, have they been submitted and approved Yes System of Distribution Two wire Voltage of Lighting 220  
 Heating Power 220 D.C. or A.C., Lighting DC Power DC If A.C. state frequency  
 Prime Movers, has the governing been found as per Rule when full load is thrown on and off Are turbine emergency governors fitted  
 with a trip switch. Generators, are they compound wound Yes, and level compounded under working conditions  
 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  
 Position of Generators In raised platforms, forward engine room, port and starboard sides  
 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 In raised platform  
 at forward end 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 Admiralty grade A Bakelite, 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 100 amp. triple pole circuit breakers with two pole  
 overload and reverse current trips.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double pole rotary switches and fuses  
 on each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule in E.R. Yes Instruments on main switchboard 2  
 ammeters 2 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 Two lamps  
 in series with mid point earthed and switches and fuses  
 Switches, Circuit Breakers and Fuses, are they as per Rule in E.R. Yes, are the fuses an Approved Type in E.R. Yes  
 make of fuses Siemens type, are all fuses labelled in E.R. Yes If circuit breakers are provided for the generators, at what  
 overload do they operate, and at what current do the reversed current protective devices operate.  
 Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule in E.R. Yes  
 Cables, are they insulated and protected as per Rule in E.R. 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, are the ends of all cables having a sectional  
 area of 0.01 square inch and above provided with soldering sockets in E.R. Yes 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 in E.R. Yes, are any cables laid under machines or floorplates No, if so, are they  
 adequately protected. 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 Lead alloy sheathed and armoured  
 and clipped to perforated steel trays and bulkheads as required.

Are all lead sheaths, armouring and conduits effectually bonded and earthed in E.R. Yes. Are all cables passing through decks and watertight  
 bulkheads provided with deck tubes or watertight glands in E.R. Yes, where unarmoured cables pass through beams, etc., are the holes  
 effectively bushed in E.R. Yes Refrigerated chambers, are the cables and fittings as per Rule



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

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..... Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present....., if so, how are they protected..... and where are the controlling switches fitted..... Are all fittings suitably ventilated.....

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

Heating and Cooking, is the general construction as per Rule....., are the frames effectually earthed....., 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..... 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.....

Control Gear and Resistances, are they constructed and fitted as per Rule..... 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....., 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 the cables lead covered as per Rule.....

E.S.D., if fitted state maker..... location of transmitter..... and receiver.....

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

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

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ... ..	1	Harland Eng. Co. Allston	12	220	54	1000	brass. Eng	Sperry SWS 2
	1	Lawrence Scott	12	220	54	1200	do.	Russell Newbery
EMERGENCY ...								
ROTARY								
TRANSFORMER								

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.	Rate.			
MAIN GENERATOR ... ..	12	1	19/052	54	64	30	VIR	Lead sheathed and armoured.
" " EQUALISER ... ..	-	1	19/052	-	64	30	VIR	
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

[illegible][illegible]

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	MOTOR CABLES.					MOTOR CABLES.	
OIL SEPARATOR MOTOR	1	1½	1	3/.036	7	10	30	V.I.R.	Lead sheathed
LUB. OIL PUMP	1	5½	1	7/.036	23	24	25	-	-
BILGE PUMP	1	2	1	3/.036	9	10	25	-	-
HOT WATER PUMP	1	½	1	3/.036	2.8	10	35	-	-
COLD - - -	1	1	1	3/.036	5	10	35	-	-



in the Engine Room  
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.



Electrical Contractors. Date

#### COMPASSES.

Have the compasses been adjusted under working conditions.

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. *MAYTHORN*

Plans. Are approved plans forwarded herewith. *-* If not, state date of approval. *16.12.48*

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

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 partly fitted in accordance with the Rules, approved plans and Secretary's letters.*

*The Installation is, in my opinion, such as could be accepted for Classification when completed.*

Total Capacity of Generators *24* Kilowatts.

The amount of Fee *50/-* £ *12* : *0* : *0*

When applied for,

19

When received,

19

Travelling Expenses (if any) £ :

Committee's Minute

Assigned

*H. B. Rogers.*  
Surveyor to Lloyd's Register of Shipping.