

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report... 17-3-52, 19... 10/5/52 When handed in at Local Office... 21/5/52 Port of... IPSWICH

No. in Survey held at... WIVENHOE Date, First Survey... 26-11-51 Last Survey... 12-3-52, 19... Reg. Book... on the MOTOR TANKER BARGE "KESTREL" Tons {Gross... 73.54 Net... 45.96

Built at... WIVENHOE By whom built... JAMES COOK (WIVENHOE) LD Yard No... 1047 When built... 1951 Owners... JAMES W. COOK & CO LTD. Port belonging to... HULLON.

Electrical Installation fitted by... JAMES COOK (WIVENHOE) LD Contract No... 1047 When fitted... 1951.

Is vessel fitted for carrying Petroleum in bulk... YES. Is vessel equipped with D.F. No... E.S.D. No... Gy.C. No... Sub.Sig. No...

Have plans been submitted and approved... YES System of Distribution... TWO WIRE Voltage of supply for Lighting... 24.

Heating... Power... 110 Direct or Alternating Current, Lighting... DIRECT Power... If Alternating Current state periodicity... Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off... Are turbine emergency governors fitted with a trip switch as per Rule... Generators, are they compound wound... YES, are they level compounded under working conditions... YES,

if not compound wound state distance between generators... and from switchboard... Where more than one generator is fitted are they arranged to run in parallel... No, 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... NO and the results found as per rule... Are the lubricating arrangements and the construction of the generators as per rule... YES Position of Generators... ENGINE ROOM AUXILIARY FITTED STAR SIDE FOR?

... is the ventilation in way of generators satisfactory... YES are they clear of inflammable material... YES, if situated near unprotected combustible material state distance from same horizontally... and vertically... are the generators protected from mechanical injury and damage from water, steam and oil... YES, are the bedplates and frames earthed... YES and the prime movers and generators in metallic contact... YES Switchboards, where are main switchboards placed... ENGINE ROOM

... are they in accessible positions, free from inflammable gases and acid fumes... YES, are they protected from mechanical injury and damage from water, steam and oil... YES, if situated near unprotected combustible material state distance from same horizontally... and vertically... what insulation material is used for the panels... SANDANYD, 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 frame effectually earthed... YES

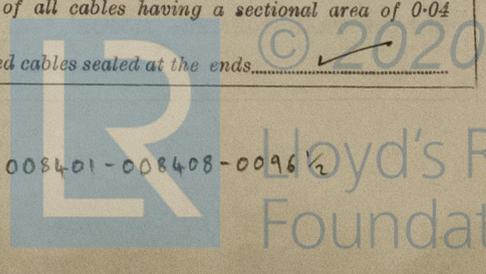
Is the construction as per Rule... YES, including accessibility of parts... YES, absence of fuses on the back of the board... YES, individual fuses to pilot and earth lamps, voltmeters, etc... YES locking of screws and nuts... YES, labelling of apparatus and fuses... YES, fuses on the "dead" side of switches... YES Description of Main Switchgear for each generator and arrangement of equaliser switches... DOUBLE POLE

... and for each outgoing circuit... DOUBLE POLE

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Instruments on main switchboard... TWO ammeters... 2 voltmeters... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the equaliser connection... 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, are all fuses labelled as per Rule... YES If circuit breakers are provided for the generators, at what overload current did they open when tested... are the reversed current protection devices connected on the pole opposite to the equaliser connection... have they been tested under working conditions, and at what current did they operate... Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule... YES

Cables, are they insulated and protected as per the appropriate Tables of the Rules... YES, if otherwise than as per Rule are they of an approved type... PYROTEX 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 0.04 square inch and above provided with soldering sockets... Are paper insulated and varnished cambric insulated cables sealed at the ends...



with insulating compound  or waterproof insulating tape . 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 cables laid under machines or floorplates  NO, if so, are they adequately protected . Are cables in machinery spaces, galleys, laundries, etc., lead covered **PYROTEX** or run in conduit . State how the cables are supported and protected **TRAYS & CLIPS**  
17-3-52.

Are all lead sheaths, armouring and conduits effectually bonded and earthed  YES. Refrigerated chambers, are the cables and fittings as per Rule .

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 effectually  and with what material . Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule  YES. Emergency Supply, state position  and method of control .

Navigation Lamps, are they separately wired  YES, controlled by separate double pole switches  YES, and fuses  YES. Are the switches and fuses in a position accessible only to the officers on watch  YES, is an automatic indicator fitted  NO. Secondary Batteries, are they constructed and fitted as per Rule  YES, are they adequately ventilated  YES, what is the battery capacity in ampere hours **95**.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof  YES. Are 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 .

and where are the controlling switches fitted  YES, are all fittings suitably ventilated .

are all fittings and accessories constructed and installed as per Rule  YES. Searchlight Lamps, No. of  YES, whether fixed or portable  YES, are their fittings as per Rule  YES. Heating and Cooking, is the general construction as per Rule  NO.

are the frames effectually earthed  YES, are heaters in the accommodation of the convection type  NONE. Motors, are all motors constructed and installed as per Rule  YES, and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil  YES, if situated near unprotected combustible material state minimum distance from same horizontally  YES, and vertically  YES. Are motors coupled to oil fuel transfer and unit 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  YES. Have certificates of test for motors under 100 BHP intended for essential 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 the cartridge type  YES, are they of an approved type  YES. 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. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule  YES, are they 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	RATED AT			DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.		Revs. per Min.	Fuel Used.
MAIN	ONE	4	24	10			
AUXILIARY	ONE	3	110		MAIN ENGINE AUXILIARY DIESEL ENGINE	DIESEL	
EMERGENCY							
ROTARY TRANSFORMER							

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR		ONE	003	2	10	18	PYROTEX.	
" " EQUALISER								
Auxiliary Generator	3		NOT YET FITTED					
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							

LIGHTING AND HEATING, ETC., CABLES.

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).	INSULATED WITH.	HOW PROTECTED.
WIRELESS							
NAVIGATION LIGHTS	ONE	003	2	15	40	PYROTEX	
LIGHTING AND HEATING	ONE	003	2	15	40	PYROTEX	
COOKING	ONE	007	30	55	90	"	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.					

not yet fitted

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.

For and on behalf of  
**JAMES W. COOK & Co. (Wivenhoe) LTD.**

Electrical Engineers.

Date 20 MAR 1952

*[Signature]*  
 GENERAL MANAGER

**COMPASSES.**

Minimum distance between electric generators or motors and standard compass.....

Minimum distance between electric generators or motors and steering compass.....

The nearest cables to the compasses are as follows:—

A cable carrying ..... Ampères ..... feet from standard compass ..... feet from steering compass.

A cable carrying ..... Ampères ..... feet from standard compass ..... feet from steering compass.

A cable carrying ..... Ampères ..... feet from standard compass ..... feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power.....

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted.....

The maximum deviation due to electric currents was found to be ..... degrees on ..... course in the case of the standard compass, and ..... degrees on ..... course in the case of the steering compass.

Builder's Signature. Date.....

Is this installation a duplicate of a previous case YES If so, state name of vessel "ALBATROSS C"

Plans. Are approved plans forwarded herewith NO. If not, state date of approval 28-8-51.

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith No

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.).....

*This electrical installation has been carried out in accordance with plans approved and the requirements of the rules. The workmanship is good. insulation tests have been carried out and found to be within rule requirements. The installation has been examined & tested under working conditions and so far as completed found to be in order.*

*To complete this electrical installation the 3KW. 110V. auxiliary dynamo remains to be fitted (to the auxiliary pump and compressor set) and wired to the switch board, and on completion the 110 Volt installation requires to be operated under working conditions & dynamo governor operated.*

*Subject to satisfactory completion the undersigned considers the installation eligible for inclusion in +LMS - A1 Barge for the carriage of petroleum & petroleum products in bulk for canal & estuary service including Air & Calder navigation. See attached letter regarding electric cooker fitted in crew space for 1st.*

Total Capacity of Generators 3 1/4 Kilowatts.

The amount of Fee £ 5 : 0 - 0 When applied for, .....19.....

Travelling Expenses (if any) £ See Enquiry Report When received, .....19.....

*[Signature]*  
 Surveyor to Lloyd's Register of Shipping.

**JUN 20 1952**

Committee's Minute.....

Assigned See F.E. Mchey rpt.

\*  
 26.5.52

5th. 4. 39. - Transfer. (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The LOND