

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... 8 NOV 1943

Date of writing Report... 4 NOV 1943 When handed in at Local Office... 19... Port of... HULL

No. in Survey held at... Selly & Hull Date, First Survey... 18. 8. 43 Last Survey... 21. 10. 43  
Reg. Book. (Number of Visits... 10)

on the Single screw steamer EARNER Tons { Gross... 591  
Net... -

Built at... Selly By whom built... Cochrane & Sons Ltd Yard No. 1270 When built... 1943

Owners... The Ministry of War Transport Port belonging to...

Electrical Installation fitted by... Wm Brandy & Sons Ltd Contract No. ... When fitted... 1943

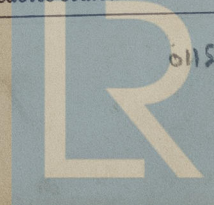
Is vessel fitted for carrying Petroleum in bulk... no Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. no Sub.Sig. no

Have plans been submitted and approved... Yes System of Distribution... Two wire Voltage of supply for Lighting... 110

Heating... 110 Power... 110 Direct or Alternating Current, Lighting... D.C. Power... D.C. 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... Yes 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... Yes and the results found as per rule... Yes Are the lubricating arrangements and the construction of the generators as per rule... Yes Position of Generators... Engine room starboard side on platform 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 starboard side forward bulkhead 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... "Sindango", 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 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, push break knife switches & double pole fuses and for each outgoing circuit... Double pole push break knife switches & double pole fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Yes Instruments on main switchboard... 2 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... Lamps coupled to earth via switches & fuses 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... - state maximum fall of pressure between bus bars and any point under maximum load... 2V, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets... Yes Are paper insulated and varnished cambric insulated cables sealed at the ends... -





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.	Flash Point of Fuel.
MAIN	1	15	110	136	500	Steam engine		
	2	15	110	136	500			
EMERGENCY								
ROTARY TRANSFORMER								

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 ...	15	1	37/072	136	152	12'	VIR	LC
" " EQUALISER	15	1	37/072	136	152	10'	"	
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TED 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 ...							
Ventilation circuit.	1	19/052	45	64	24'	V.I.P.	L.C. AP6180A W.F.
J.E.	1	19/064	25	83	52'	"	6189
Forward lighting circuit.	1	1/064	25	46	202'	"	6191
Shore connection	1	37/072		102	30'	"	6187

	1	7/034	31	31	180'	VIR	LC AP6192R	W.F.
WIRELESS ... ..	1	7/034	5	24	180'	"	6193	"
NAVIGATION LIGHTS ... ..	1	7/036						
LIGHTING AND HEATING ... ..								
Engine & boiler rooms direct from main S/H	1	7/036		24	280'	"	6193	"
10" Search light	1	7/036		24	276'	"		
Wheel house & wireless rooms	1	7/036		24	8'	"		
Deck accommodation	1	7/036		24	50'	"		
Lower deck								

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.									
Refrigerator	1	$\frac{3}{4}$	1	3/036	7.5	10	80	VIR	L.C. AP6195A	W	
Engine room fan 12"	1	$1\frac{1}{2}$	1	7/029	14	18	40	"	"	6194	
Port side forward fan 7"	1	$\frac{3}{4}$	1	7/029	11	18	140	"	"	"	
" " starboard " 7"	1	$\frac{3}{4}$	1	7/029	11	18	120	"	"	"	
Food store fan 5"	1	$\frac{1}{2}$	1	3/036	2.5	10	200	"	"	6195	
W.T. fan 5"	1	$\frac{1}{2}$	1	7/029	4.2	15	120	"	"	6194	
Exhaust " 5"	1	$\frac{1}{2}$	1	3/036	2.2	10	45	"	"	6195	
Refrig. (D.R.)	1	$\frac{1}{2}$	1	3/036	4.2	10	120	"	"	"	



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.

W. BROADY & SON LTD  
ENGLISH ENGINEERS  
HULL

Electrical Engineers.

Date 12.10.43.

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 20'

Minimum distance between electric generators or motors and steering compass 35'

The nearest cables to the compasses are as follows:—

A cable carrying 1 Ampères inside feet from standard compass 6' feet from steering compass.

A cable carrying 25 Ampères 6' feet from standard compass inside 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 Yes

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

The maximum deviation due to electric currents was found to be 1 1/2 degrees on every course in the case of the

standard compass, and 1 1/2 degrees on every course in the case of the steering compass.

FOR OOHANE & SONS, LTD

Builder's Signature.

Date

V. Gray DIRECTOR

Is this installation a duplicate of a previous case Yes If so, state name of vessel ASSIDIOUS

Plans. Are approved plans forwarded herewith If not, state date of approval 10/9/41

Certificates. Are certificates of test for motors engaged on essential 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 equipment of this vessel was installed under special survey and in accordance with the approved plans and with the specification. The materials used are of good quality and the workmanship is good. On completion the equipment was operated under working conditions with satisfactory results and the insulation resistance of all circuits and apparatus was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted  
10/11/43

Total Capacity of Generators 30 Kilowatts.

The amount of 22 10 : When applied for, NOV 1943  
Specification 22 10 :  
Travelling Expenses (if any) £ : : When received. 19.

ADMIRALTY

A/c rendered from  
London 26.11.43

W. B. Cornell  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES 23 NOV 1943

Assigned See fe machy rpl.