

11 JAN 1943

Rpt. 13.

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 51861.

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of Hull Received at London Office.....

No. in Survey held at Hull Date, First Survey 4. 6. 42. Last Survey 14/12 1942  
Reg. Book. (Number of Visits 24)

on the H.M.T. "CORNCRAKE" Tons { Gross 384  
Net 133

Built at Selly By whom built Bochran & Sons Ltd. Yard No. 1246 When built 1942

Owners The Admiralty Port belonging to.....

Electrical Installation fitted by Brigham & Cowan Ltd. Contract No. ✓ When fitted 1942

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

Have plans been submitted and approved Yes System of Distribution Parallel Constant Pressure Voltage of supply for Lighting 110

Heating 110 Power 110 Direct or Alternating Current, Lighting DC Power DC If Alternating Current state frequency ✓ Prime Movers,

has the governing been tested and found efficient when the whole load is suddenly thrown on and off Yes Are turbine emergency governors fitted with a

rip switch as per Rule ✓ Generators, are they compound wound Yes, are they level compounded under working conditions Yes

not compound wound state distance between generators ✓ and from switchboard ✓ Where more than one generator is fitted are they

arranged to run in parallel ✓, 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 Admiralty 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

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 Adjoining generator in 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 Units mounted on frames with mica strip insulation, 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

the construction as per Rule Yes, including accessibility of parts Yes, absence of fuses on the back of the board Yes, individual fuses

pilot and earth lamps, voltmeters, etc. Yes locking of screws and nuts Yes, labelling of apparatus and fuses Yes, fuses on the "dead"

le of switches Yes Description of Main Switchgear for each generator and arrangement of equaliser switches.....

D.P. switches + fuses

D.P. switches + fuses

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

meters one 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

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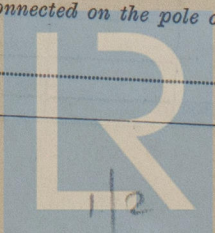
D.P. switches + fuses

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equaliser connection ✓ Earth Testing, state means provided Earth lamps + switches

W376-0228



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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, are the reversed current protection devices connected on the pole opposite to the equaliser connection. ✓, have they been tested under working conditions. ✓ 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. 400 lbs, 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 exposed 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. Yes or run in conduit. — State how the cables are supported and protected. clipped to trays or bulkheads Cables run in solid drawn conduit in bunkers & magazine spaces D.G. cables run in special steel tube in bunkers with gland & drainage arrangements 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 effectively bushed. Yes and with what material. Lead Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes Emergency Supply, state position. Oil lamps and oldham lamps 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. W/O only are they adequately ventilated. Yes 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. Spine Admiralty pattern lamps in magazine & spirit rooms in conduit & protected by wire cappings and where are the controlling switches fitted. Two deck above, are all fittings suitably ventilated. Yes are all fittings and accessories constructed and installed as per Rule. Yes Searchlight Lamps, No. of One, whether fixed or portable. portable, are their fittings as per Rule. 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. No 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. ✓ and vertically. ✓ 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 services been supplied and the results found as per Rule. Admiralty Supply Control Gear and Resistances, are they constructed and fitted as per Rule. Yes Lightning Conductors, where required are they fitted as per Rule. Not fitted 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 the cartridge type. ✓ are they of an approved type. ✓ If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type. 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 megger 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.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	One	15	110	136	500	Steam engine	—	—
EMERGENCY ...								
ROTARY TRANSFORMER								

## GENERATOR CABLES

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Each.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..	15	one	37/072	136	152	22	VIR	LC AP6187A
" " EQUALISER ... ..	—	—	—	—	—	—	—	—
SHORE CONNECTION	—	—	—	—	—	26	—	—
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR ... ..								

MAIN DISTRIBUTION CABLES

AUX. SWITCHBOARDS AND SECTION BOARDS D.G.		7036	25	31	-	VIR	LC	AP	6193 A
FOR ° RADIATORS	"	7034	44	46	110	"	"	"	6191 A
AFT LIGHTING & BELL CIRCUITS	"	7044	14	31	190	"	"	"	6192 A
FOR ° D°	"	"	30	"	130	"	"	"	"
W/T	"	7036	20	24	110	"	"	"	6193 A
C SEARCHLIGHT	"	7029	3	18	"	"	"	"	6194 A
NAVIGATION	"	7036	19	24	"	"	"	"	6193 A
AFT RADIATORS	"	7004	25	31	90	"	"	"	6191 A

## LIGHTING AND HEATING, ETC., CABLES.

[illegible]

## MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.								
Refrigerator 7½ cwt.	1	1/3	One	3/036	3.4	12	16	VIR	L.C.	AP 6195 A
3½ "	1	1/3	"	"	"	"	36	"	"	"
Ventilating fan 12½ (ER)	1	1.5	"	7/029	4	18	"	"	"	6194 A
" 5" Guitaccon	1	.5	"	3/036	4.6	12	75	"	"	6195 A
" Paines	1	.18	"	"	2	"	40	"	"	"
" handloom pump	1	"	"	"	2	"	30	"	"	"



# CORNCRAKE

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 BRIGHAM & COWAN (HULL) LTD.

*W. L. Lutter*  
GENERAL MANAGER

Electrical Engineers.

Date 17/12/42.

## COMPASSES.

Minimum distance between electric generators or motors and standard compass 75 ft.

Minimum distance between electric generators or motors and steering compass 70 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères led into feet from standard compass 4 feet from steering compass.

A cable carrying 4 Ampères 5 feet from standard compass 2 feet from steering compass.

A cable carrying 2 Ampères 3 feet from standard compass 3 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 nil degrees on any course in the case of the standard compass, and nil degrees on any course in the case of the steering compass.

For BRIGHAM & COWAN (HULL) LTD.

*W. L. Lutter*  
GENERAL MANAGER

Builder's Signature.

Date

Is this installation a duplicate of a previous case.

Yes.

If so, state name of vessel

"GRAYLING"

with minor alterations

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

This installation has been fitted on board in accordance with the approved plans and requirements of the Admiralty and the Society's Rules. The workmanship and materials are good, and when tried under working conditions and tested as prescribed by the Admiralty and the Rules the installation was found satisfactory in every respect.

*Noted*

12/1/43

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ...	£ 30 : -	:	When applied for,
			8.1.19.43.
Travelling Expenses (if any) £	:	:	When received.
			19.

*W. S. Shields*

Surveyor to Lloyd's Register of Shipping.

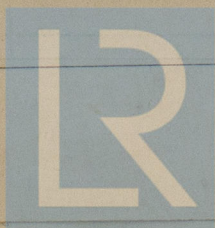
Committee's Minute

111. 22 JAN 1943

Assigned

*See Hull J.E. 51861*

(MADE IN ENGLAND.)  
2m.10.33.—Transfer.  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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