

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

21 MAR 1946

Date of writing Report: 22ND FEBRUARY 1946 When handed in at Local Office: 2. 3. 1946 Port of: NEWCASTLE-ON-TYNE

No. in Survey held at WALKER - ON - TYNE. Date, First Survey (1945) Oct. 3RD Last Survey 15TH FEBRUARY 1946
Reg. Book. (Number of Vols. 11)

36844 on the M.V. "BRITISH CAUTION" Tons { Gross 8559 Net 4923

Built at NEWCASTLE By whom built SWAN HUNTER & WIGHAM RICHARDSON Yard No. 1764 When built 1945

Owners BRITISH TANKER CO. LTD. Port belonging to

Electrical Installation fitted by CAMPBELL & ISHERWOOD LTD. Contract No. - When fitted 1946

Is vessel fitted for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES Sub.Sig. -

Have plans been submitted and approved YES System of Distribution TWO WIRE INSULATED Voltage of supply for Lighting 110

Heating - Power - Direct or Alternating Current, Lighting D.C. 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 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

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 IN 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 NEAR GENERATORS.

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 SINDANYO, 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

400 AMPERE DOUBLE POLE CIRCUIT BREAKER WITH OVERLOAD, TIME LAG AND NO

VOLT PROTECTION.

and for each outgoing circuit DOUBLE POLE CHANGEDOVER QUICK BREAK SWITCHES AND A FUSE IN

EACH POLE.

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 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 140%, 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 YES,

state maximum fall of pressure between bus bars and any point under maximum load 6VOLTS, 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 YES

with insulating compound... or waterproof insulating tape... **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 cables laid under machines or floorplates... **NO**, if so, are they adequately protected... Are cables in machinery spaces, valleys, laundries, etc., lead covered... **YES** or run in conduit... State how the cables are supported and protected. **LEAD COVERED BRAIDED AND ARMOURD CABLES CLIPPED TO PERFORATED TRAY LEAD COVERED CABLES CLIPPED TO WOOD GROUNDS IN ACCOMMODATION.**

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 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... 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... **YES**. Secondary Batteries, are they constructed and fitted as per Rule... are they adequately ventilated... what is the 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... **YES**. Are 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... **YES**, are all fittings and accessories constructed and installed as per Rule... **YES**. Searchlight Lamps, No. of... whether fixed or portable... are their fittings as per Rule... 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... **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... 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... 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... 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			Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampres.			Fuel Used.	Flash Point of Fuel.
MAIN	2	30	110	273	600	STEAM ENGINES.		
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	30	1	37/103	273	385	36	V.C.	L.C.
" " EQUALISER								
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							
MIDSHIP AUX. SWITCHBOARD	1	37/083	224	296	520	V.C.	L.C.A.B.
AFT ACCOMM. SECTION BOARD	1	19/044	38	87	160	V.C.	L.C.A.B.
AFT BOAT HOIST SECTION BOARD	1	7/064	33.5	75	160	V.C.	L.C.A.B.

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	19/052	30	104	610	V.C.	L.C.A.B.
NAVIGATION LIGHTS	1	7/044	1.5	42	620	V.C.	L.C.A.B.
LIGHTING AND HEATING	ALTERNATIVE SUPPLY FROM NAV. BRIDGE DIS. FUSE BOARD.						
DIS. FUSE BOARD "A" NAV. BRIDGE PORT.	1	7/044	6	42	108	V.C.	L.C.
" " "B" " " STAR.	1	7/044	12	42	112	V.C.	L.C.
" " "C" UPPER BRIDGE DECK	1	7/044	18	42	96	V.C.	L.C.
" " "D" " " "	1	7/036	8	28	40	V.C.	L.C.
" " "E" BRIDGE DECK PORT.	1	7/044	12	42	76	V.C.	L.C.
" " "F" " " STAR.	1	7/044	12	42	20	V.C.	L.C.
" " "G" " " PORT.	1	7/044	24	42	20	V.C.	L.C.
" " "H" POOP DECK AFT PORT.	1	7/044	7	42	20	V.C.	L.C.
" " "I" " " " STAR.	1	7/044	10	42	116	V.C.	L.C.
" " "J" UPPER DECK " PORT.	1	7/044	14	42	80	V.C.	L.C.
" " "K" " " " STAR.	1	7/044	12	42	68	V.C.	L.C.
" " "L" " " " STAR.	1	7/044	10	42	20	V.C.	L.C.
" " "M" POOP DECK " STAR.	1	7/026	3	28	124	V.C.	L.C.A.B.
" " "N" ENGINE ROOM.	1	7/064	35	75	30	V.C.	L.C.A.B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
THERMOTANK MIDSHIP.	1	4	1	7/064	33	75	58	V.C.	L.C.
" " AFT.	1	4	1	7/064	33	75	152	V.C.	L.C.A.B.
BOAT HOISTS MIDSHIP FORE.	1	2	1	7/044	16.7	42	96	V.C.	L.C.
" " AFT.	1	2	1	7/064	16.7	75	70	V.C.	L.C.A.B.
WORKSHOP MOTOR	1	5	1	7/064	42	75	136	V.C.	L.C.A.B.
CRANE MOTOR	1	3	1	7/036	26.2	28	170	V.C.	L.C.A.B.
PRIMING PUMP.	1	1.5	1	7/036	13.5	28	84	V.C.	L.C.A.B.
LUB. OIL PURIFIER MOTOR	1	2	1	7/036	17.2	28	180	V.C.	L.C.A.B.
FUEL " " "	1	2	1	7/044	17.2	42	30	V.C.	L.C.A.B.
BOAT HOIST AFT. STAR.	1	2	1	7/044	16.7	42	104	V.C.	L.C.A.B.
" " " PORT.	1	2	1	7/044	16.7	42	54	V.C.	L.C.A.B.

