

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report. 19th OCTOBER 1946. When handed in at Local Office. 4. 11. 1946 Port of NEWCASTLE-ON-TYNE

No. in Survey held at WALLSEND - ON - TYNE. Date, First Survey (1946) July 12 Last Survey Oct. 10th 1946
Reg. Book.

88464 on the M.V. "REGENT TIGER" Tons (Gross 9960 Net 5931)

Built at WALLSEND By whom built SWAN HUNTER & WIGHAM RICHARDSON LTD. Yard No. 1743 When built 1946

Owners OIL TANK STEAMSHIP CO. LTD. Port belonging to LONDON

Electrical Installation fitted by SWAN HUNTER & WIGHAM RICHARDSON 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. No Sub.Sig. No

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

Heating — 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. 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. DOUBLE POLE QUICK BREAK

SWITCH WITH A FUSE ON EACH INSULATED POLE.

—, and for each outgoing circuit. DOUBLE POLE QUICK BREAK CHANGE OVER SWITCH WITH A FUSE ON EACH INSULATED POLE.

—, Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. YES Instruments on main switchboard. THREE.

ammeters. THREE, 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. —,

state maximum fall of pressure between bus bars and any point under maximum load. 4.7 VOLTS, 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

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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, galleys, laundries, etc., lead covered. Yes or run in conduit. — State how the cables are supported and protected. MAIN CABLES — LEAD COVERED ARMORED & BRAIDED CLIPPED TO STEEL TRAY UNDER FOE & AFT GANGWAYS.

MAIN CABLES — LEAD COVERED CLIPPED TO PERFORATED STEEL TRAY.

ACCOMMODATION CABLES — LEAD COVERED CLIPPED TO WOOD GROUNDS.

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. —

— 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. No, if so, how are they protected. —

—, 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. —

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. 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.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	33	110	300	640	STEAM ENGINE		
	1	10	110	91	1000	DIESEL ENGINE	OIL	ABOVE 150° F.
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 Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	33	1	37-103	300	385	75	V.C.	L.C.A. + B.
" " EQUALISER	10	1	19-052	91	104	60	V.C.	L.C.A. + B.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load 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							
ENGINE ROOM MOTORS	1	19-052	81	104	165	V.C.	L.C.A.
AFT THERMOTANK FANS & BOAT WINCHES	1	19-064	93	135	240	V.C.	L.C.A.
ENGINE ROOM VENT. FANS.	1	7-064	25	46	240	V.I.R.	L.C.A.
MIDSHIP THERMOTANK FANS & BOAT WINCHES.	1	19-083	62	191	630	V.C.	L.C.A. + B.
MIDSHIP ACCOM. & FORECASTLE Ltg.	1	19-083	44.2	191	630	V.C.	L.C.A. + B.
AFT ACCOMMODATION LIGHTING.	1	19-052	44.6	104	150	V.C.	L.C.A.
ENGINE & BOILER ROOM LIGHTING.	1	7-052	42.8	54	90	V.C.	L.C.A.
SHORE CONNECTION BOX.	1	19-052	100	104	210	V.C.	L.C.A.

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	19-064	25	135	705	V.C.	L.C.A. + L.C.
NAVIGATION LIGHTS	1	19-064	25	135	705	V.C.	L.C.A. + L.C.
LIGHTING AND HEATING							
MIDSHIP ACCOMMODATION.	1	7-036	31.9	24	45	V.I.R.	L.C.
MIDSHIP ACCOMMODATION.	1	7-052	34.1	34	30	V.I.R.	L.C.
MIDSHIP ACCOMMODATION.	1	7-052	31.5	34	60	V.I.R.	L.C.
FORECASTLE LIGHTING.	1	7-044	4.7	31	315	V.I.R.	L.C.A.
AFT ACCOMMODATION.	1	7-044	26.8	31	60	V.I.R.	L.C.
AFT ACCOMMODATION.	1	7-044	16.4	31	135	V.I.R.	L.C.
AFT ACCOMMODATION.	1	7-044	18.1	31	45	V.I.R.	L.C.
AFT ACCOMMODATION.	1	7-044	16.3	31	45	V.I.R.	L.C.
ENGINE ROOM LIGHTING.	1	7-044	20.0	31	60	V.I.R.	L.C.A.
ENGINE ROOM LIGHTING.	1	7-044	22.8	31	150	V.I.R.	L.C.A.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
FUEL PRIMING PUMP MOTOR.	1	1.5	1	7-029	15	15	30	V.I.R.
FUEL VALVE COOLING PUMP MOTORS.	2	1	1	7-029	10	15	30	V.I.R.
FUEL OIL PURIFIER MOTOR.	1	2.5	1	7-026	23	24	45	V.I.R.
LUB. OIL PURIFIER MOTOR.	1	2.5	1	7-026	23	24	90	V.I.R.
BOAT WINCHES AFT.	2	3.5	1	7-044	21	31	135	V.I.R.
THERMOTANK FANS AFT.	2	3.5	1	7-044	31	31	90	V.I.R.
TRAVELLING CRANE MOTOR.	1	3	1	7-044	26	31	150	V.I.R.
ENGINE ROOM VENT. FAN MOTORS.	2	1.45	1	7-026	17.5	24	90	V.I.R.
REFRIG. MOTOR.	1	6	1	7-053	50	84	150	V.C.
WORKSHOP MOTOR.	1	5	1	7-044	42	46	225	V.I.R.
THERMOTANK FAN MIDSHIPS.	1	3.5	1	7-044	31	31	45	V.I.R.
BOAT WINCHES MIDSHIPS.	2	3.5	1	7-044	31	31	120	V.I.R.

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

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

[Signature]

Electrical Engineers.

Date

2nd Nov 1946

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... 23 FEET.

Minimum distance between electric generators or motors and steering compass..... 20 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 0.14 Ampères INSIDE feet from standard compass 6 feet from steering compass.

A cable carrying 0.14 Ampères 6 feet from standard compass INSIDE ~~6~~ 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 NIL degrees on EVERY course in the case of the

standard compass, and NIL degrees on EVERY course in the case of the steering compass.

For

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Builder's Signature.

Date

2.11.46.

[Signature]

Is this installation a duplicate of a previous case..... No If so, state name of vessel.....

Plans. Are approved plans forwarded herewith..... YES If not, state date of approval.....

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 HAS BEEN INSTALLED IN ACCORDANCE WITH THE SOCIETY'S RULES AND REGULATIONS, AND THE ARRANGEMENTS ARE IN ACCORDANCE WITH OR EQUIVALENT TO THOSE SHOWN ON THE APPROVED PLANS.

THE MATERIALS USED ARE OF GOOD QUALITY AND THE WORKMANSHIP IS SATISFACTORY.

ON COMPLETION THE INSULATION RESISTANCE OF ALL CIRCUITS WAS ABOVE RULE REQUIREMENTS AND THE GENERATORS OPERATED ON LOAD AND GOVERNORS TESTED WITH SATISFACTORY RESULTS.

THE EQUIPMENT, AS INSTALLED, IS, IN MY OPINION, SUITABLE FOR A CLASSED VESSEL.

Noted 22.11.46

Total Capacity of Generators..... 76 ✓ Kilowatts.

The amount of Fee ... £ 30 : 2 : 7 NOV 1946

Travelling Expenses (if any) £ : : When received. 19.

Surveyor to Lloyd's Register of Shipping.

[Signature]

FRI. 13 DEC 1946

Committee's Minute

Assigned *See F.E. mch. rpt.*

5m. 4.38.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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