

Rpt. 13.

No. 101367

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 28 JUN 1943 When handed in at Local Office 28 JUN 1943 Received at London Office 28 JUN 1943

No. in Survey held at WALLSEND - ON - TYNE Date, First Survey 2-4-43 Last Survey 11-6- 1943
Reg. Book. (Number of Visits 8)

on the M.V. "NACELLA" Tons Gross 8196.39
Net 4774.25

Built at WALLSEND - ON - TYNE By whom built SWAN HUNTER - WIGHAM RICHARDSON LTD Yard No. 1645 When built 1943
Owners ANGLO SAXON PETROLEUM CO. LTD. Port belonging to LONDON

Electrical Installation fitted by SWAN HUNTER - WIGHAM RICHARDSON LTD. Contract No. 1645 When fitted 1943

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. YES

Have plans been submitted and approved YES System of Distribution TWO WIRE 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 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 MAIN SWITCHBOARD IN ENGINE ROOM. SUB MAIN SWITCHBOARD IN MIDSHIP CORRIDOR

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 INTEROM, 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 SWITCHES AND DOUBLE POLE FUSES

and for each outgoing circuit DOUBLE POLE, DOUBLE THROW SWITCHES AND 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 EARTH LAMPS CONNECTED TO 'E' THROUGH SWITCHES AND 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 4.4 Y, are the ends of all cables having a sectional area of 0.6 square inch and above provided with soldering sockets YES Are paper insulated and varnished cambric insulated cables sealed at the ends YES

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.

Electrical Engineers.

Date 25th June 1943

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 $\frac{1}{4}$ Ampères ~~INSIDE~~ ~~feet from~~ standard compass feet from steering compass.

A cable carrying $\frac{1}{4}$ Ampères 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

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 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.

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Builder's Signature.

Date 25.6.43.

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

Plans. Are approved plans forwarded herewith..... If not, state date of approval 12.4.43.

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith

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

The Electrical Installation of this Vessel was installed under special Survey, and is in accordance with the approved plans, and the Societies Rules.

The materials used are of good quality, and the workmanship is satisfactory.

On completion, Insulation resistance in every circuit, was satisfactory, and the Generators were operated under working conditions with satisfactory results.

The equipment, as installed, is suitable in my opinion, for a classed vessel.

Noted
14/7/43.

Total Capacity of Generators..... 60 Kilowatts.

The amount of Fee ... £ 28 : 10 : When applied for, 12.9 JUN 1943

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

A. A. Dimenz
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 16 JUL 1943

Assigned Sec minute
or L.B. Rph