

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report... 6-3-47 When handed in at Local Office... APRIL 1947 Port of... MIDDLESBROUGH.

No. in Survey held at... MIDDLESBROUGH. Date, First Survey... 4-11-46 Last Survey... 5-3-1947
Reg. Book. (Number of Visits... 9)

85972 on the BRITISH EMPRESS Tons Gross 8680 Net 4970

Built at HAVERTON HILL By whom built, FURNESS SHIPBUILDING CO. Yard No. 391 When built 1946.

Owners BRITISH TANKER CO. LTD. Port belonging to LONDON.

Electrical Installation fitted by FURNESS SHIPBUILDING CO. Contract No. 391 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. YES

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

Heating Power 110 Direct Current, Lighting YES Power YES 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 YES 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 YES, 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, MIDSHIPS FORWARD OF MAIN ENGINE.

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 ON FORWARD BULKHEAD ON GALLERY.

AUX. SWITCHBOARD IN MIDSHIPS ACCOMMODATION.

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 EBONY 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 TRIPLE POLE

CIRCUIT BREAKER WITH PROTECTIVE RELAYS FOR OVERLOAD, REVERSE CURRENT,

AND NO VOLT TRIPPING

and for each outgoing circuit DOUBLE POLE SINGLE THROW QUICK BREAK SWITCH AND

DOUBLE POLE FUSES.

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

ammeters FOUR voltmeters synchronising devices For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection YES Earth Testing, state means provided EARTH LAMPS CONNECTED TO 'E' THROUGH 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 50%, are the reversed current

protection devices connected on the pole opposite to the equaliser connection YES, have they been tested under working conditions, and at what current

did they operate 10% 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 6y, are the ends of all cables having a sectional area of 0.01

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.

FURNES SHIPBUILDING CO. LIMITED

Electrical Engineers

Date

12.6.3.47

COMPASSES.

Minimum distance between electric generators or motors and standard compass

16 FEET

Minimum distance between electric generators or motors and steering compass

10 FEET

The nearest cables to the compasses are as follows:—

A cable carrying 0.14 Ampères ~~INSIDE~~ standard compass 10 feet from steering compass.

A cable carrying 0.14 Ampères 10 feet from standard compass ~~INSIDE~~ 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.

FURNES SHIPBUILDING CO. LIMITED

Builder's Signature

Date

Is this installation a duplicate of a previous case

YES

If so, state name of vessel

BRITISH ADMIRAL

Plans. Are approved plans forwarded herewith

If not, state date of approval

13.4.1946

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

GENERATORS.

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 UNDER SPECIAL SURVEY AND THE ARRANGEMENTS ARE IN ACCORDANCE WITH OR EQUIVALENT TO THOSE SHOWN ON THE APPROVED PLANS AND THE SOCIETY'S REQUIREMENTS.

THE MATERIALS USED ARE OF GOOD QUALITY AND THE WORKMANSHIP IS GOOD. ON COMPLETION THE EQUIPMENT WAS OPERATED UNDER WORKING CONDITIONS. THE PROTECTIVE DEVICES OF THE CIRCUIT BREAKERS WERE ADJUSTED AND OPERATED AND THE INSULATION RESISTANCE OF ALL CIRCUITS MEASURED AND FOUND GOOD.

THIS INSTALLATION AS NOW FITTED IS, IN MY OPINION, SUITABLE FOR A CLASSED VESSEL INTENDED FOR THE CARRIAGE OF PETROLEUM IN BULK.

Total Capacity of Generators $3 \times 30 = 90$ Kilowatts

The amount of Fee

£ 31

: 10

:

When applied for,

1-4-1947

Travelling Expenses (if any)

£

:

:

When received,

10

Committee's Minute

FRI. 2 MAY 1947

Assigned

Su F.E. nchy. npl.



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