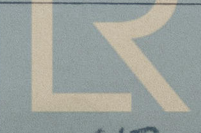


REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

17 MAR 1942

Date of writing Report.....19..... When handed in at Local Office.....4/3/42..... Port of Newcastle on TyneNo. in Survey held at Walker Date, First Survey 19 Dec Last Survey 25 Feb 1942
Reg. Book. (Number of Vols. 6)36394 on the NORFJELL previously EMPIRE SAXON Tons {Gross 8129
Net 4630Built at Walker By whom built Swan Hunter & Wigham Yard No. 1706 When built 1941/2Owners Ministry of War Transport Port belonging to CSLOElectrical Installation fitted by Cambell & Johnson Contract No. When fitted 1942Is vessel fitted for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. No Sub.Sig. NoHave plans been submitted and approved Yes System of Distribution Two wire Voltage of supply for Lighting 110Heating No Power Yes Direct or Alternating Current, Lighting direct Power direct 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 atrip switch as per Rule Yes Generators, are they compound wound Yes, are they level compounded under working conditions Yesnot compound wound state distance between generators Yes and from switchboard Yes Where more than one generator is fitted are theyarranged to run in parallel Yes, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive poleNegative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes Have certificates oftest for machines under 100 kw. been supplied Yes and the results found as per rule Yes Are the lubricating arrangements and the constructionof the generators as per rule Yes Position of Generators YesYes, is the ventilation in way of generators satisfactory Yes are they clear of inflammable material Yes, if situatednear unprotected combustible material state distance from same horizontally Yes and vertically Yes, are the generators protected from mechanicalinjury and damage from water, steam and oil Yes, are the bedplates and frames earthed Yes and the prime movers and generators in metalliccontact Yes Switchboards, where are main switchboards placed Engine room, on platform after bulkhead near generatorsare they in accessible positions, free from inflammable gases and acid fumes Yes, are they protected from mechanical injury and damage from water, steamand oil Yes, if situated near unprotected combustible material state distance from same horizontally Yes and vertically Yes, what insulationmaterial is used for the panels Linoleum, if of synthetic insulating material is it an Approved Type Yes, if ofsemi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Yes Is the frame effectually earthed YesIs the construction as per Rule Yes, including accessibility of parts Yes, absence of fuses on the back of the board Yes, individual fusesto 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 Circuit breakerswith 4 coil and Reverse current trip.and for each outgoing circuit Double pole, double throw quick break knife switchesand double pole fusesAre compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 2ammeters 2 voltmeters 2 synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to theequaliser connection Yes Earth Testing, state means provided Earth lamps coupled to earth via switches & fusesSwitches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type Yes, are all fuses labelled asper Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested 500 A, are the reversed currentprotection devices connected on the pole opposite to the equaliser connection Yes, have they been tested under working conditions, and at what currentdid they operate Yes Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule YesCables, 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 Yesstate maximum fall of pressure between bus bars and any point under maximum load 5.0, are the ends of all cables having a sectional area of 0.04square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends YesLloyd's Register
Foundation

006175-006188-0188

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.

CAMPBELL & ISHERWOOD, LTD.

Thomas Mearns

Electrical Engineers.

Date 22/3/42

COMPASSES.

Minimum distance between electric generators or motors and standard compass 280'-0"

Minimum distance between electric generators or motors and steering compass 285'-0"

The nearest cables to the compasses are as follows:—

A cable carrying 1/4 Ampères inside feet from standard compass — feet from steering compass.

A cable carrying 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 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.

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Thos Morrison

Builder's Signature.

Date 3rd March 1942

Is this installation a duplicate of a previous case Yes If so, state name of vessel EMPIRE FLINT

Plans. Are approved plans forwarded herewith Yes If not, state date of approval 28th Nov 1941

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 was installed under special survey and in accordance with the approved plans. The materials are of good quality and the workmanship good. On completion the equipment was operated under working conditions with satisfactory results, and the insulation resistance was measured and found good.
This equipment is in my opinion suitable for a classed vessel.

Noted
L.H.
18/3/42

Total Capacity of Generators 50 Kilowatts.

The amount of Fee ... £ 34 : 7 : 6 When applied for, 16 MAR 1942

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

Committee's Minute

FRI 20 MAR 1942

Assigned

See Nuc. No. 100252

A.H. Cornell

Surveyor to Lloyd's Register of Shipping.