

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 14 AUG 1941

Date of writing Report 23rd July 1941

When handed in at Local Office 19

Port of Middlesbrough

No. in Survey held at South Bank-on-Tees

Date, First Survey 17th June

Last Survey 21st July 1941

Reg. Book.

(Number of Visits 7)

on the H.M.S. "STONECROP"

Tons

Gross

Net

Built at South Bank-on-Tees

By whom built Smiths Dock Ltd

Yard No. 1096

When built 1941

Owners Admiralty

Port belonging to

Electrical Installation fitted by R. Pickering & Sons Ltd

Contract No.

When fitted 1941

Is vessel fitted for carrying Petroleum in bulk No

Is vessel equipped with D.F. No E.S.D. Yes Gy.C. No Sub.Sig. No

Equipment to Admiralty Plans

Have plans been submitted and approved

System of Distribution Two-Wire insulated

Voltage of supply for Lighting 110

Heating 110

Power 110

Direct or Alternating 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

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

Positive

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 port and starboard aft on

raised stools 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 starboard aft near

starboard generating set.

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 Construction of Switchboard in accordance with Admiralty Electrical

specifications Nos. 3 & 4. if of synthetic insulating material is it an Approved Type 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 overload, time lag, reverse current and 20-Volt

tripping device, one pole used for equaliser

and for each outgoing circuit double-pole quick break knife switch and double pole

cartridge fuse.

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

ammeters Two 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 E. lamps coupled to E. M. through 5000 fuses.

Switches, Circuit Breakers and Fuses, are they as per Rule To Admiralty Standard Electrical Specifications 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 195 A, 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 25 A 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 To Admiralty Standard Electrical Specifications are they of an approved type

state maximum fall of pressure between bus bars and any point under maximum load 7.4.4 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 None fitted



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Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to dry or condensed moisture, weatherproof yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present yes, if so, how are they protected in magazine, spirit store etc in accordance with Admiralty Specification and where are the controlling switches fitted outside dangerous spaces, are all fittings suitably ventilated yes, are all fittings and accessories constructed and installed as per Rule yes Searchlight Lamps, No. of 2x10", whether fixed or portable Portable with triple socket, are their fittings as per Rule yes Heating and Cooking, is the general construction as per Rule yes, Admiralty Standard Pattern are the frames effectually earthed yes, are heaters in the accommodation of the convection type yes 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 yes and vertically yes 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 yes Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing yes 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 Lighting 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

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	15	110	131	500	Single Cylinder Steam Engine		
EMERGENCY ...								
ROTARY TRANSFORMER								

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.							
				In the Circuit.	Rule.					
MAIN GENERATOR - <i>Star Mark.</i>	15	1	37/072	181	152	46	V.I.R.	L.C.		
" " EQUALISER		1	37/072	—	152	23	V.I.R.	L.C.		
<i>Main generator - Port.</i>	15	1	37/072	181	152	84	V.I.R.	L.C.		
<i>Equaliser</i>		1	37/072	—	152	42	V.I.R.	L.C.		
<i>Short Connection</i>		1	19/083	—	118	100	V.I.R.	L.C.		
EMERGENCY GENERATOR										
ROTARY TRANSFORMER: MOTOR										
GENERATOR										

[illegible][illegible]

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.										
14½" Ventilation Fan.	1	3.5	1	7/044	25-20	31	100	V-1-R	L-C.	6192A		
12½ " "	1	.5	1	7/036	25-20	24	44	V-1-R	L-C.	6193A		
12½ " "	1	.5	1	7/029	13-10	15	160	V-1-R	L-C.	6194A		
7½ " "	1	.5	1	3/036	5-4	10	46	V-1-R	L-C.	6195A		
5" " "	1	1.19	1	3/036	2.	10	36	V-1-R	L-C.	6195A		
2 pndt. Gum Motor	1	6. appm	1	19/052	-	64	-	V-1-R	L-C.	6190A		

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.

RICHARD PICKERSGILL & SONS, LTD.

Electrical Engineers.

Date 28/7/41

COMPASSES.

Minimum distance between electric generators or motors and standard compass 175 ft.

Minimum distance between electric generators or motors and steering compass 168 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 1/4 Ampères on the feet from standard compass 7 feet from steering compass.

A cable carrying 1/4 Ampères 7 feet from standard compass on the 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.

Builder's Signature.

Date.

Is this installation a duplicate of a previous case. Yes If so, state name of vessel H.M.S. "SAPHIRE"

Plans. Are approved plans forwarded herewith. No. If not, state date of approval. 16 Admiralty approval.

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith. No.

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 in accordance with the Admiralty plans and specification and amendments thereto, and generally in accordance with the 1939-1940 Rules for Electrical Equipment. The materials used are of good quality and design, and the workmanship is good. On completion, trials of the equipment were witnessed generally as required by Admiralty regulation O.V. 5332 and found satisfactory. This equipment is in my opinion suitable for a vessel bearing the Society's Class A. "For Government Service"

Noted

18/8/41

Total Capacity of Generators (2x15) 30 Kilowatts.

The amount of Fee ... £15 :-

When applied for, 13.8.19.41.

Travelling Expenses (if any) £ :

When received, 19.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 22 AUG 1941

Assigned

See Indb. J.E. 17079



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