

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office NOV -1 1940

Date of writing Report 7th Oct. 1940. When handed in at Local Office 18th Oct. 1940. Port of Maidenhead

No. in Survey held at South Bank-on-Sus Date, First Survey 28th Aug. Last Survey 7th Oct. 1940.
Reg. Book. Supp. (Number of Visits.....)

89967 on the S.S. "STUART PRINCE" Tons { Gross 1911
Net 919

Built at South Bank-on-Sus By whom built Smith's Dock Co., Ltd. Yard No. 1069 When built 1940

Owners Ponice Line, Ltd. Port belonging to London

Electrical Installation fitted by Richard Pickering & Sons, Ltd. Contract No. 1069 When fitted 1940

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 Barrel wire Voltage of supply for Lighting Yes

Heating Power Yes Direct Alternating Current, Lighting Yes Power Yes If Alternating Current state frequency..... Prime Movers,

has the governing been tested and found efficient when the whole 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 starboard side

....., 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 side on

off bulkhead 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 Slate....., 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 Yes 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

double throw knife switch and double pole fuse

.....

and for each outgoing circuit Double pole knife switch and double pole fuse

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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..... Earth Testing, state means provided Elamps connected to E through R.C.D. fuses

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Switches, Circuit Breakers and Fuses, are they as per Rule 7/2, are the fuses an approved type 7/2, are all fuses labelled as per Rule 7/2, are the reversed current protection devices connected on the pole opposite to the equaliser connection 7/2, have they been tested under working conditions 7/2. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule 7/2. Cables, are they insulated and protected as per the appropriate Tables of the Rules 7/2, if otherwise than as per Rule are they of an approved type 7/2, state maximum fall of pressure between bus bars and any point under maximum load 7/2, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets 7/2. Are paper insulated and varnished cambric insulated cables sealed at the exposed ends 7/2 with insulating compound 7/2 or waterproof insulating tape 7/2. 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 7/2, are cables laid under machines or floorplates 7/2, if so, are they adequately protected 7/2. Are cables in machinery spaces, galleys, laundries, etc., lead covered 7/2 or run in conduit 7/2. State how the cables are supported and protected 7/2. L.C.A.B. cables clipped to surface in machinery spaces: L.C.A.B. clipped to plate in fwd. 'Lumbers' and run in galv. pipe on deck to mainmast: L.C.A.B. cables clipped to surface on wood grounds in accom. Are all lead sheaths, armouring and conduits effectually bonded and earthed 7/2. Refrigerated chambers, are the cables and fittings as per Rule 7/2. Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands 7/2, where unarmoured cables pass through beams, etc., are the holes effectively bushed 7/2 and with what material Lead. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule 7/2. Emergency Supply, state position 7/2 and method of control 7/2.

Navigation Lamps, are they separately wired 7/2 controlled by separate double pole switches 7/2 and fuses 7/2. Are the switches and fuses in a position accessible only to the officers on watch 7/2, is an automatic indicator fitted 7/2. Secondary Batteries, are they constructed and fitted as per Rule 7/2, are they adequately ventilated 7/2. Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof 7/2. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present 7/2, if so, how are they protected 7/2. gaslight fittings bolted in openings in transverse sides, casings outside transverse. and where are the controlling switches fitted on the engine room, are all fittings suitably ventilated 7/2. are all fittings and accessories constructed and installed as per Rule 7/2. Searchlight Lamps, No. of 7/2, whether fixed or portable 7/2, are their fittings as per Rule 7/2. Heating and Cooking, is the general construction as per Rule 7/2. are the frames effectually earthed 7/2, are heaters in the accommodation of the convection type 7/2. Motors, are all motors constructed and installed as per Rule 7/2 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil 7/2, if situated near unprotected combustible material state minimum distance from same horizontally 7/2 and vertically 7/2. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing 7/2. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule 7/2. Control Gear and Resistances, are they constructed and fitted as per Rule 7/2. Lightning Conductors, where required are they fitted as per Rule 7/2. 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 7/2, are all fuses of the cartridge type 7/2 are they of an approved type 7/2. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type 7/2. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule 7/2, are they suitably stored in dry situations 7/2. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory 7/2.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.				Fuel Used.	Flash Point of Fuel.
MAIN	1	12	110	109	850	simple exp. steam engine			
DEAUSING	1	12	110	109	540	simple exp. steam engine			
AUXILIARY	1	5	110	46.5	1000	simple exp. diesel engine	Fuel Oil	Approved	
EMERGENCY									
ROTARY TRANSFORMER									

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	12	1	37/064	109	130	36	V.I.R.	L.C.A.B.
" " EQUALISER								
AUXILIARY GENERATOR	5	1	19/024	46.5	53	52	V.I.R.	L.C.A.B.
DEAUSING GENERATOR	12	1	37/064	109	130	40	V.I.R.	L.C.A.B.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS								
Machinery Section Board fwd.	1	19/024	42.4	52	160	V.I.R.	L.C.A.B.	
Supply. Whisthorne Eq. db.	1	7/036	13.7	24	188	V.I.R.	L.C.A.B.	
Engine. Saloon db.	1	7/036	13.3	24	149	V.I.R.	L.C.A.B.	
Offic. Eq. db.	1	7/036	16.4	24	2	V.I.R.	L.C.A.B.	

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS								
NAVIGATION LIGHTS	1	7/026	7	24	440	V.I.R.	L.C.A.B. & L.C.B.	
LIGHTING AND HEATING								
Crew's Eq. db.	1	7/036	10.3	24	328	V.I.R.	L.C.A.B.	
Aft Fans & Purge db.	1	7/024	25.1	51	160	V.I.R.	L.C.A.B.	
Fwd. Fans & Purge db.	1	7/024	51.6	46	224	V.I.R.	L.C.A.B.	
Engine Room Eq. db.	1	7/036	21.5	24	9	V.I.R.	L.C.A.B.	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Refiq. Imp.	2	241	1	7/024	17+9	21	150	V.I.R. L.C.A.B.

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.

A. H. Smith

Electrical Engineers.

Date 10th Oct, 1940

COMPASSES.

Minimum distance between electric generators or motors and standard compass 44 feet

Minimum distance between electric generators or motors and steering compass 40 feet

The nearest cables to the compasses are as follows:—

A cable carrying .14 Ampères on the ~~foot from~~ standard compass 7 feet from steering compass.

A cable carrying .14 Ampères 7 feet from standard compass on the ~~foot 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 SMITH'S DOCK CO. LTD.

G. E. Hunter

Builder's Signature.

Date 12-10-40

Is this installation a duplicate of a previous case Yes If so, state name of vessel 'Korman Prince'

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 fitted out under special
survey. The materials used and the workmanship are good.
On completion the equipment was run under working
conditions with satisfactory results, the governing, regulation
and compounding of the generating sets were tested, the
insulation resistance of all circuits was measured and
the spare gear was examined. This equipment is in
my opinion suitable for a closed vessel.

Noted.
L.H. 4/11/40

Total Capacity of Generators 17 + 12 (D.G.) Kilowatts.

The amount of Fee ... £ 16 : 0 : 28-9-19.40

When applied for,

Travelling Expenses (if any) £ : : 5-12-19.40

When received.

G. Hunter

Surveyor to Lloyd's Register of Shipping.

Committee's Minute THE 5 NOV 1940

Assigned See Mdb JE 16917

2m. 10. 38.—Transfer. (MADE IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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