

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 25 AUG 1948

Received at London Office

Date of writing Report 29th July 1948 When handed in at Local Office 4 - AUG 1948 Port of NEWCASTLE-ON-TYNE

No. in Survey held at HEBBURN-ON-TYNE Date, First Survey 11/12/47 Last Survey 27th July 1948
Reg. Book.

38218 on the S.S. "STANFIRTH" Ex. "BEAULY FIRTH" Tons { Gross 4845
Net 5671

Built at SOUTH SHIELDS By whom built J. READHEAD & SONS LTD. Yard No. - When built 1945

Owners STANHOPE S.S. CO. LTD. Port belonging to LONDON.

Electrical Installation fitted by PALMERS (HEBBURN) CO. LTD. Contract No. - When fitted 1948.

Is vessel fitted for carrying Petroleum in bulk No Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES Sub.Sig. YES
RADAR - YES

Have plans been submitted and approved YES System of Distribution TWO WIRE - INSULATED Voltage of supply for Lighting 220

Heating - Power 220 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 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 IN 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 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 EBONY SANDANJO, 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 200 AMPERE CIRCUIT BREAKER

WITH OVERLOADS AND REVERSE CURRENT TRIPS. Equalisers shown on plan

and for each outgoing circuit DOUBLE POLE SWITCH WITH A FUSE ON EACH LEG.

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 YES Earth Testing, state means provided EARTH LAMPS

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 200 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 YES 200 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 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 1/2 VOLTS, 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 -

with insulating compound or waterproof insulating tape. 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. YES, are cables laid under machines or floorplates. NO, if so, are they adequately protected. Are cables in machinery spaces, galleys, laundries, etc., lead covered. YES or run in conduit. State how the cables are supported and protected. MAIN CABLES - LEAD COVERED & BRAIDED IN CONDUIT OR CLIPPED TO STEEL TRAY.
ACCOMMODATION CABLES - LEAD COVERED CLIPPED TO WOOD GROUNDS.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. YES. Refrigerated chambers, are the cables and fittings as per Rule. Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. YES, where unarmoured cables pass through beams, etc., are the holes effectively bushed. YES and with what material. LEAD. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. YES. Emergency Supply, state position.

Navigation Lamps, are they separately wired. YES, controlled by separate double pole switches. YES and fuses. YES. Are the switches and fuses in a position accessible only to the officers on watch. YES, is an automatic indicator fitted. YES. Secondary Batteries, are they constructed and fitted as per Rule. Are they adequately ventilated. what is the battery capacity in ampere hours.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. YES. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. NO, if so, how are they protected.

and where are the controlling switches fitted. are all fittings suitably ventilated. YES.

are all fittings and accessories constructed and installed as per Rule. YES. Searchlight Lamps, No. of, whether fixed or portable.

are their fittings as per Rule. Heating and Cooking, is the general construction as per Rule.

are the frames effectually earthed. are heaters in the accommodation of the convection type. 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 and vertically. 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. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. Control Gear and Resistances, are they constructed and fitted as per Rule. Lightning 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. are all fuses of the cartridge type.

are they of an approved type. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships. Are the cables lead covered as per Rule. 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.

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	2	30	220	137	600	STEAM ENGINE		
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 Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	30	1	37-072	137	152	30	V.I.R.	L.C.
" " EQUALISER		1	19-083	68.5	118	15	V.I.R.	L.C.
EMERGENCY GENERATOR								
ROTARY TRANSFORMER MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	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. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
MIDSHIP ACCOMMODATION CIRCUIT "A"	1	19-083	68.5	118	210	V.I.R.	L.C.
VENTILATION CIRCUIT "B"	1	19-052	46.7	64	210	V.I.R.	L.C.
VENTILATION D.B. PASSAGE UPPER DECK, STARBOARD.	1	7-036	18.5	24	20	V.I.R.	L.C.
VENTILATION D.B. LOBBY POOP DECK.	1	7-044	7.5	31	360	V.I.R.	L.C.
REFRIGERATING PLANT CIRCUIT "C"	1	7-064	20.25	46	100	V.I.R.	L.C.
ENGINE ROOM LIGHTING CIRCUIT "E"	1	7-064	29	46	200	V.I.R.	L.C.
CARGO LIGHTING CIRCUIT "F"	1	7-064	26.2	46	200	V.I.R.	L.C.
GYRO COMPASS	1	7-036	10	24	315	V.I.R.	L.C.
RADAR	1	7-036	10	24	315	V.I.R.	L.C.

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7-036	10	24	300	V.I.R.	L.C.
NAVIGATION LIGHTS CIRCUIT "D"	1	7-044	10	31	320	V.I.R.	L.C.
LIGHTING AND HEATING MIDSHIP Ltg. D.B. "A.D.1"	1	7-036	9.4	24	190	V.I.R.	L.C.
MIDSHIP LIGHTING D.B. "A.D.2"	1	7-036	8.4	24	130	V.I.R.	L.C.
MIDSHIP LIGHTING D.B. "A.D.3"	1	7-036	11.0	24	60	V.I.R.	L.C.
MIDSHIP LIGHTING D.B. "A.D.4"	1	7-036	10.5	24	30	V.I.R.	L.C.
MIDSHIP LIGHTING D.B. "A.D.5"	1	7-036	15.0	24	30	V.I.R.	L.C.
MIDSHIP LIGHTING D.B. "A.D.6"	1	7-029	4.3	15	90	V.I.R.	L.C.
MIDSHIP LIGHTING D.B. "A.D.7"	1	7-029	4.9	15	30	V.I.R.	L.C.
ENGINE ROOM LIGHTING D.B. "E.D.1"	1	7-036	14.5	24	30	V.I.R.	L.C.
ENGINE ROOM LIGHTING D.B. "E.D.2"	1	7-036	14.5	24	60	V.I.R.	L.C.
CARGO LIGHTING FORWARD D.B. "F.D.1"	1	7-064	17.3	46	400	V.I.R.	L.C.
CARGO LIGHTING FORWARD D.B. "F.D.2"	1	7-064	6.4	46	10	V.I.R.	L.C.
CARGO LIGHTING FORWARD D.B. "F.D.3"	1	7-036	8.9	24	220	V.I.R.	L.C.
CREW ACCOMMODATION Ltg. D.B. "G.D.1"	1	7-044	11.3	31	430	V.I.R.	L.C.

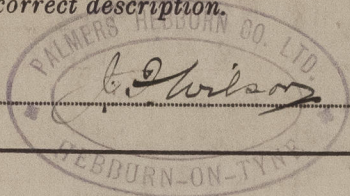
MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
EGG BALER MAIN PANTRY	1	1 Kws.	1	3-036	5	10	120	V.I.R. L.C.
TOASTER MAIN PANTRY	1	2.5 Kws.	1	7-029	11.3	15	110	V.I.R. L.C.
12 1/2" DIA. VENTILATION FANS	3	-	1	7-029	6.9	15	190	V.I.R. L.C.
10" DIA. VENTILATION FANS	3	-	1	7-029	5.0	15	50	V.I.R. L.C.
7 1/2" DIA. VENTILATION FANS	2	-	1	3-036	3.0	10	105	V.I.R. L.C.
5" DIA. VENTILATION FANS	4	-	1	3-036	2.0	10	110	V.I.R. L.C.
REFRIG. COMPRESSOR MOTOR	1	4.5	1	7-064	19.0	46	20	V.I.R. L.C.

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.



Electrical Engineers.

Date 29 July 1948

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 Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass 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 degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

Builder's Signature.

Date

Is this installation a duplicate of a previous case. No

If so, state name of vessel

Plans. Are approved plans forwarded herewith. Yes

If not, state date of approval

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 EQUIPMENT OF THIS VESSEL HAS BEEN REWIRED IN ACCORDANCE WITH THE SOCIETY'S RULES AND REGULATIONS AND THE ARRANGEMENTS ARE IN ACCORDANCE WITH OR EQUIVALENT TO THOSE SHOWN ON THE APPROVED PLANS.

THE MATERIALS USED ARE OF GOOD QUALITY AND THE WORKMANSHIP IS SATISFACTORY.

ON COMPLETION THE INSULATION RESISTANCE OF ALL CIRCUITS WAS ABOVE RULE REQUIREMENTS AND THE GENERATORS OPERATED ON LOAD AND GOVERNING TESTS WITH SATISFACTORY RESULTS.

THE EQUIPMENT, AS INSTALLED, IS, IN MY OPINION, SUITABLE FOR A CLASSED VESSEL.

Noted and 23/9/48

Total Capacity of Generators 60 Kilowatts.

The amount of Fee ... £ 16 : 0 :

When applied for,

24 AUG 1948

LICENCE SUPERVISION

Travelling Expenses (if any)

When received.

19

R. P. Storie

Surveyor to Lloyd's Register of Shipping.

RI. 24 SEP 1948

Committee's Minute

Assigned

S. F. E. Welch. rpt.



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