

174 SEP 1953

Rpt. 13.

No. _____

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report _____ 19____ When handed in at Local Office _____ 19____ Port of Bremen

No. in Survey held at Bremenhaven Date, First Survey 17.4.53 Last Survey 11.8 1953

Reg. Book. _____ (No. of Visits 12)

59011 on the S.S. "ESSO BELFAST" Tons { Gross 13074 Net 7864

Built at Kiamy N.Y. USA By whom built Federal SB & DD Co. Ltd Yard No. _____ When built 1930

Owners Esso Petroleum Co. Port belonging to London

Installation fitted by _____ When fitted 1930

Is vessel equipped for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. Yes Radar Yes

Plans, have they been submitted and approved _____ System of Distribution Two-wire Voltage of Lighting 110

Heating Yes Power 220 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency _____

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted

with a trip switch Yes Generators, are they compound wound Yes, and level compounded under working conditions Yes

if not compound wound state distance between generators _____ and from switchboard _____ Are the generators 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 _____ and the results found as per Rule _____

Position of Generators Starboard side of engine-room, second platform

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil Yes Switchboards, where are main switchboards placed Starboard side of

engine room second platform

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

steam and oil Yes, what insulation is used for the panels Vulcanite composition, 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 construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches Double pole main and single pole equaliser

switches. No reverse current trip switch on 300KW dynamo.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Overload Double pole trip switches

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 4

ammeters 3 voltmeters 3 synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided + and

- lamps.

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes

make of fuses Wecker's Extra, are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate 1,600 amps. and at what current do the reversed current protective devices operate _____

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

Cables, are they insulated and protected as per Rule Yes, if otherwise than as per Rule are they of an Approved Type Yes

state maximum fall of pressure between bus bars and any point under maximum load _____, are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Part-soldered Part-stayed Are all paper insulated and varnished cambric insulated

cables sealed at the ends None fitted 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 any cables laid under machines or floorplates Yes, if so, are they

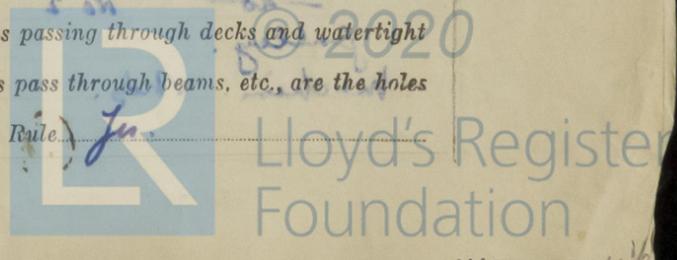
adequately protected Yes Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit _____

or of the "HR" type Yes State how the cables are supported or protected trays and clips, conduit.

Are all lead sheaths, armoring and conduits effectively bonded and earthed No 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 Refrigerated chambers, are the cables and fittings as per Rule Yes



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Emergency Supply, state position

Navigation Lamps, are they separately wired controlled by separate double pole switches and fuses Are the switches and fuses in a position accessible only to the officers on watch Is an automatic indicator fitted Is an alternative supply provided

Secondary Batteries, are they constructed and fitted as per Rule None, are they adequately ventilated

state 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

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present

if so, how are they protected main pump room: system top lights with heavy glass fronts. Frid. pump room and centre console: explosion proof glass covers and metal guards. Are all fittings suitably ventilated

and where are the controlling switches fitted engine room, fore peak space and bilge accommodation.

Searchlight Lamps, No. of "1-24", whether fixed or portable fixed, are they of the carbon arc or of the filament type Filament.

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 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil

Are motors coupled to oil fuel ~~transfer~~ 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 sea 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 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 an Approved Cartridge Type make of fuse Wickers (Zaton) 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

E.S.D., if fitted state maker Submarine Signal Co. USA. location of transmitter engine room and receiver aft pump room

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN	2	Hastinghouse	300.	240	1250	1200	St. Turbine	De Laval.
	1	Hastinghouse	175	240.				By M.P. main turbine.
EMERGENCY ROTARY TRANSFORMER	2	Hastinghouse	25	120.	208	1750		

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. Ins.	In the Circuit.	Rule.			
MAIN GENERATOR No. 1 + 2.	300.	3	.62 x 3	1250	1170.	66.	VRI.	LCAB.
" EQUALISER								
" attached dynamo to H.P. turbine shaft -	175.							
Note: - attached dynamo disconnected from drive and is not used.								
EMERGENCY GENERATOR	25	1	.15	146	150	12	VRI.	LCAB.
ROTARY TRANSFORMER: MOTOR	25	1	.15	208	150	48	"	"

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. Ins.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Midship + forecabin	1	.1682	160.	165	700.	VRI.	LCAB.
Upper deck	1	.06	35	80	200.	"	"
Shelter deck.	1	.06	60.	80.	250	"	"
Boiler room	1	.0093	25	29.	80	"	"
Engine room	1	.09	100.	125.	150.	"	"
Radar.	1	.06	65	80.	750	"	"
Radar.	1	.0388	60.	63	800.	"	"
Vent system No. 1	1	.1088	95	125.	60	"	"
- do - No. 2	1	.1088	80	125.	60.	"	"
Galley.	1	.325	200	255.	350.	"	"
Machine shop.	1	.0388	63.	63.	200	"	"

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. Ins.	In the Circuit.	Rule.			
Wireless.	1	.007	10	24	30	VRI.	LCAB.
Navigation lights.	1	.007	10	24	60.	"	"
Lighting	1	.007	10	24		"	LC.
Cargo motor handles	1	.0225.	30	46	60	"	LCAB.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Main feed pump.	1	60	1	.1863, 250	175	150	VRI LCAB.
Aux " "	1	20/45	1	.0775 58/180	99	150	"
Condensate "	1	15	1	.06 56	80	180	"
Fuel oil "	1	3.	1	.0093 12.5	29	180	"
Lub oil circ "	1	15	1	.06 58	80	180	"
Main circ "	1	40/50	1	.232 180	205	100	"
Aux circ "	1	20	1	.1472 75	150	100	"
Bilge "	1	10	1	.06 38	80	100	"
Sump No 1	1	15/20	1	.0388 60/75	63	100	"
" No 2	1	5	1	.0093 18.5	29	100	"
Main Cargo No 1	1	200	2	.35 650	500	180	"
" No 2	1	200	2	.35 650	500	180	"
" No 3	1	200	2	.35 650	500	180	"
Cargo stuffing "	1	60	1	.1472 18/227	150	180	"
L.C. coils "	1	5	1	.0093 20	29	80	"
T.D. fan "	1	15	1	.0388 60	63	60	"
I.D. fan "	1	20	1	.0388 75	63	80	"
Steering No. 1 motor.	1	20	1	.1088 75	125	250	"
" No 2	1	20	1	.1088 75	125	250	"
Refrig. motor.	1	5	1	.0225 19	40	80	"
L.O. Separator motor.	1	R	1	.0093 7.8	29	150	"
Hand-water pump.	1	A	1	.0093 6.5	29	150	"
Drinking "	1	0.5	1	.0062 2.5	22.5	80	"
Vent fans No. 1	8	1.8	1	.1088 7.8	125		"
" No. 2	4	1.6	1	.1088 23.5	125		"
Air compressor.	1	25	1	.0388 74	63	150	"
Wireless.	1	25	1	.06 275	390	1100	"
aft wind	1	25	1	.08 96	110	600	"
Fore wind.	1	25	1	.08 96	110	900	"
Working wind.	1	25	1	.08 96	110	350	"
ME Turning motor	1	10	1	0.0225 30	40	60	"

