

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 12.6.1927 When handed in at Local Office 19 Port of Rotterdam Received at London Office 7 JUL 1927

No. in Survey held at Rotterdam Date, First Survey 5.4.27 Last Survey 16.6.1927
Reg. Book. (Number of Visits 18)

on the Steel Single Screw Motor Tanker, TROCAS

Tons { Gross
Net

Built at Rotterdam By whom built Rott Drooga Ny Yard No. 99 When built 1917

Owners Anglo Saxon Petroleum Port belonging to London

Electric Light Installation fitted by Werns Rutschten, Bouwers Contract No. _____ When fitted 1925

System of Distribution Two wire system ✓

Pressure of supply for Lighting 110 volts, Heating _____ volts, Power 110 ✓ volts.

Direct or Alternating Current, Lighting direct current ✓ Power direct current ✓

If alternating current system, state frequency of periods per second _____

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes ✓

Generators, do they comply with the requirements regarding rating Yes ✓, are they compound wound Yes ✓
are they over compounded 5 per cent. Yes ✓, if not compound wound state distance between each generator _____

Where more than one generator is fitted are they arranged to run in parallel Yes ✓, is an adjustable regulating resistance fitted in series with each shunt field Yes ✓

Are all terminals accessible, clearly marked, and furnished with sockets Yes ✓, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes ✓

Are the lubricating arrangements of the generators as per Rule Yes ✓
Position of Generators In engine room near the switchboard ✓, is the ventilation in way of the generators satisfactory Yes ✓, are they clear of all inflammable material Yes ✓

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators _____ and _____, are the generators protected from mechanical injury and damage from water, steam or oil Yes ✓, are their axes of rotation fore and aft Yes ✓

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes ✓ are the prime movers and their respective generators in metallic contact Yes ✓

Main Switch Boards, where placed In engine room near the generators ✓

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard _____

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes ✓

are they protected from mechanical injury and damage from water, steam or oil Yes ✓, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards _____ and _____

are they constructed wholly of durable, non-ignitable non-absorbent materials Yes ✓, is all insulation of high dielectric strength and of permanently high insulation resistance Yes ✓

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework _____, and is the frame effectively earthed _____

Are the fittings as per Rule regarding:— spacing or shielding of live parts Yes ✓, accessibility of all parts Yes ✓, absence of fuses on back of board Yes ✓, proportion of omnibus bars Yes ✓

individual fuses to voltmeter, pilot or earth lamp Yes ✓, connections of switches Yes ✓

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches for each generator a double pole quick linked knife switch for equalizer and neutral pole and automatic minimal single pole quick linked switch for the positive pole and for each outgoing circuit a double pole quick linked knife switch and double pole fuse

Instruments on main switchboard _____ ammeters _____ voltmeters _____ synchronising device for paralleling purposes _____

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system two earth lamps on the switchboard for lighting and two earth lamps on the switchboard for power

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes ✓

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes ✓



Cables: Single, twin, concentric, or multicore Single are the cables insulated and protected as per Tables IV or V of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3 Volts Yes

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Yes

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound Yes

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage Yes

Support and Protection of Cables, state how the cables are supported and protected In engine room lead covered, in all other places lead covered and armoured. The cables on deck laid in iron tubes. In engine room armoured and secured by iron clips

If cables are run in wood casings, are the casings and caps secured by screws Yes, are the cap screws of brass Yes, are the cables run in separate grooves Yes. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII Yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements Yes

Joints in Cables, state if any, and how made, insulated, and protected No joints

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed Yes state the material of which the bushes are made Lead or hardwood

Earthing Connections, state what earthing connections are fitted and their respective sectional areas Yes

are their connections made as per Rule Yes

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule Yes

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven Yes

Navigation Lamps, are these separately wired Yes, controlled by separate switch and separate fuses Yes, are the fuses double pole Yes, are the switches and fuses grouped in a position accessible only to the officers on watch Yes, has each navigation lamp an automatic indicator as per Rule Yes

Secondary Batteries, are they constructed and fitted as per Rule Yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and where exposed to drip or condensed moisture, watertight Yes, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected Yes, are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Yes, how are the cables led Yes, where are the controlling switches situated Yes

Searchlight Lamps, No. of 1, whether fixed or portable Yes, are their fittings as per Rule Yes

Arc Lamps, other than searchlight lamps, No. of 1, are their live parts insulated from the frame or case Yes, are their fittings as per Rule Yes

Motors, are their working parts readily accessible Yes, are the coils self-contained and readily removable for replacement Yes, are the brushes, brush holders, terminals and lubricating arrangements as per Rule Yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material Yes, are they protected from mechanical injury and damage from water, steam or oil Yes are their axes of rotation fore and aft Part, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated forced draught, drip or flame proof type Part, if not of this type, state distance of the combustible material horizontally or vertically above the motors Part and Part

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule Yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule Yes

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings Yes

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office Yes

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	3	32 each	110	24/266	650	Diesel Engine		
AUXILIARY	1	14	110	127	440	Steam engine		
EMERGENCY	1	14	110	127	440	Steam engine		
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Am. circ.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	40 melle	19	2.17 melle	100	160 ell	Rubber lead covered & armoured	
	EQUALISER CONNECTIONS	1	25 melle		2.13 melle	50	8 ell		
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS	4	35	19	1.53 melle	50	160 ell		
	ENGINE ROOM	2	14			1	15 ell		
	BOILER ROOM	2	14			1	15 ell		
	ACCOMMODATION	2	25	4	2.13 melle	40	80 ell		
	WIRELESS	2	10	4	1.55	25	120 ell		
	SEARCHLIGHT								
	MASTHEAD LIGHT...	2	14			2.25	160 ell		
	SIDE LIGHTS	4	14			2.25	32 ell		
	COMPASS LIGHTS	2	14			0.5	16 ell		
	POOP LIGHTS	2	14			0.9	40 ell		
	CARGO LIGHTS	2	14			1.6	30 ell		
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Am. circ.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR	2	95	19	2.52	160	164 ell	Rubber lead covered & armoured	
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS	1	24			10	20 ell		
	OIL FUEL TRANSFER PUMP	2	25	4	2.13	60	40 ell		
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR—								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR	2	240	19	2.17	240	110 ell		
	WORKSHOP MOTOR	1	6	4	1.05	20	30 ell		
	VENTILATING FANS								
	Cooling water pump	1	20	95	19	2.52	200	30 ell	
	Oil pump	2	6	4	1.05	24	35 ell		
	Generator	1	14			2	10 ell		
	Rolling machine	1	4			16	30 ell		
	Refrigerator	1	50	19	1.83	104	120 ell		
	Other machinery	1	95	19	2.52	144	8 ell		

4

All Conductors are of annealed copper conforming to British Standard Specification No. 7. *Yes*
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
The foregoing is a correct description.

N. V. Van Rietschoten & Houwens'
Electrotechnische Maatschappij

Electrical Engineers.

Date *30 June 1927*

COMPASSES.

Distance between electric generators or motors and standard compass *80 ell*

Distance between electric generators or motors and steering compass *85 ell*

The nearest cables to the compasses are as follows:—

A cable carrying *13* Ampères *9* feet from standard compass *9* feet from steering compass.

A cable carrying *25* Ampères *25* feet from standard compass *21* feet from steering compass.

A cable carrying *10* Ampères *25* feet from standard compass *21* 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 *none* degrees on *every* course in the case of the standard compass, and *none* degrees on *every* course in the case of the steering compass.

ROTTERDAMSCHЕ BROODOK MAATSCHAPPIJ
DIRECTEUR

Builder's Signature.

Date *30 June 1927*

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *MV TELENE*
MARPESSA
GOLDMOUTH

General Remarks (State quality of workmanship, opinions as to class, &c. *This installation has been fitted in accordance with the Society's Rules, was found in a good working order when tried and merits in my opinion the Committee's approval*)

It is submitted that this vessel is eligible for THE RECORD, Elec light.

J.W.D.
8/7/27

Total Capacity of Generators *124* Kilowatts.

The amount of Fee ... *£392.00* When applied for, *25/6* 19*27*
Travelling Expenses (if any) £ : : When received, *4/7* 19*27*

J. M. Dehuwa
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRY 8 JUL 1927*

Assigned *Elec Light*

Im. 1. 28.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



© 2021

Lloyd's Register Foundation