

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

15 OCT 1947

Date of writing Report 19<sup>th</sup> Sept 47 When handed in at Local Office 30 9 47 Port of GLASGOW

No. in Survey held at AYR Date, First Survey 18-4-47 Last Survey 10 9 19 47  
Reg. Book.

36899 on the M.V. "PASS OF BRANDER" (Ex Empire Tegambia) Tons Gross 1300 Net 163

Built at Lubeck By whom built Lubecker Flender Werke A.G. Yard No. - When built 1936

Owners Bulk Oil B.S. Co. Ltd Port belonging to London

Electrical Installation modified by Messrs. Troup Curtis, Co. Ltd Contract No. - When fitted modified 1944

Is vessel fitted for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. No "Decca Navigator" Sub-Sig.

Have plans been submitted and approved No System of Distribution Two Wire Voltage of supply for Lighting 110

Heating 110 Power 110 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 No, 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 "Sindanyo", 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 D.P. Switch and

Fuses

and for each outgoing circuit D.P. Change-over Switch and Fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule - 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 - 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 - are the reversed current

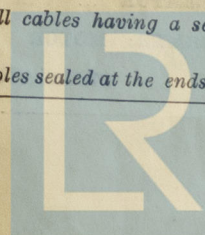
protection devices connected on the pole opposite to the equaliser connection - have they been tested under working conditions, and at what current

did they operate - 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 Yes

state maximum fall of pressure between bus bars and any point under maximum load 5.6 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 Yes



Lloyd's Register  
Foundation



PARTICULARS OF GENERATING PLANT.								
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	22	110	200	1100	I.C. Engine	Diesel Oil	Above 150°F
EMERGENCY ...								
ROTARY TRANSFORMER								

## PARTICULARS OF GENERATING PLANT

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
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MAIN ...	2 ✓	22 ✓	110 ✓	200	1100	I.C. Engine	Diesel Oil	Above 150°F
EMERGENCY ...								
ROTARY TRANSFORMER								

## GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return loss).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Stranda. Sq. ins. or sq. mm.	In the Circuit.	Bale.			
MAIN GENERATOR ... ..	22	1	34/083	200	296	70	V.C.	L.C.
" " EQUALISER ... ..	22	1	34/083	200	296	50	V.C.	L.C.
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR ... ..								

### MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS ... ..	1	19-0315	20	34	150	V.I.R.	L.C. Metal Braid Arm'd
NAVIGATION LIGHTS ... ..	1	1-0415	5	15-5	142	"	" " " " "
LIGHTING AND HEATING ... ..							
D.B. Aft Port	1	1-044	8	31	18	V.I.R.	L.C.A.B.
" " Stbd	1	1-044	11	31	2	"	"
D.B. Aft Heating and E.R. Power	1	19-064	89	135	40	V.C.	L.C.
" Midship Heating	1	19-064	68	135	145	"	"
" Engine Room Lighting	1	1-029	9	15	53	V.I.R.	L.C.A.B.
" Midship	1	19-0315	16	34	140	"	L.C. Metal Braid Arm'd
" Chartroom	1	1-044	13	31	30	"	L.C.
" E.R. Power	1	1-036	21	24	8	"	"
Oil Filter	1	1-036	22	24	10	"	L.C.A.B.
Immersion Heater	1	1-044	24	31	40	"	"

## MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Compressor	1	31.5	10.032	60	64	22	V.I.R.	L.C.	
Fuel Oil Transfer	1	0.45	1.054	8.8	9.5	63		L.C. Metal Braid Armoured	
Lub. Oil Pumps	2	2	1.045	14.4	15.5	26	"	"	"
Salt Water Pump	1	1	1.054	9.8	9.5	63	"	"	"
F.W. Pump.	1	1	1.054	8.8	9.5	63	"	"	"
Fire & Bilge Pump	1	6.5	10.040	53	44	38	"	"	"
Rudder Assistance.	1	2.5	10.0245	30	28	192	"	"	"



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

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 13 feet

Minimum distance between electric generators or motors and steering compass 8 feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.01 Ampères led into feet from standard compass led into feet from steering compass.

A cable carrying 30 Ampères 13 feet from standard compass 8 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 Any course in the case of the standard compass, and Nil degrees on Any 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 "As Fitted" plan attached If not, state date of approval

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith Yes (Generators)

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

A Special Survey has been carried out on the installation of this vessel.

At this time, modifications and repairs were effected, as detailed on Report 9. attached

On completion, all circuits examined, the installation tried under full working conditions, and all found satisfactory.

The materials and workmanship are good.

FOR THE INFORMATION OF THE COMMITTEE

Noted  
10.11.47

Total Capacity of Generators 44 Kilowatts.

The amount of Fee ... Charged on Reft 9. : When applied for, 19.....  
Travelling Expenses (if any) £ : When received, 19.....

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 14 OCT 1947

Assigned SEE ACCOMPANYING MACHINERY REPORT



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