

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.

23 JUL 1951

Date of writing Report 19 When handed in at Local Office 21: 7: 19 51 Port of Middlesbrough  
 No. in Survey held at Middlesbrough Date, First Survey 8. 3. 51 Last Survey 29. 6 19 51  
 Reg. Book. (No. of Visits 14)

91352. on the M. V. "British Lady". Tons Gross 6140 Net 3329  
 Built at Southbank-on-Tees By whom built Smiths Dock Co. Ltd. Yard No. 1211. When built 1951.  
 Owners British Tanker Co. Ltd. Port belonging to

Installation fitted by Campbell & Ishuwood Co. Ltd. When fitted 1951.

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. - Radar Yes.

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

Heating 110 Power 110 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 - 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

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.

Position of Generators Starboard side on platform above starting platform level. Engine Room,

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 athwartships on

platform forward in Engine Room facing aft.

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 Sindango Ebony finish, 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 construction as per Rule, including locking of screws and nuts. Yes. Description of Main Switchgear

for each generator and arrangement of equaliser switches Triple Pole Air Break Circuit Breaker with

Overloads, Time delays, Reverse Current trip and third pole coupled to

equaliser.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double Pole Double Throw Quick

Break Knife Switch and Double Pole Fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes. Instruments on main switchboard 3

ammeters 3 voltmeters - 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

Earth lamps coupled to Earth through switches and fuses.

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

make of fuses Siemens 'Z' are all fuses labelled Yes. If circuit breakers are provided for the generators, at what

overload do they operate 10% and at what current do the reversed current protective devices operate 10%

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 -

state maximum fall of pressure between bus bars and any point under maximum load 6.6 volts, are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Yes. Are all paper insulated and varnished cambric insulated

cables sealed at the ends Yes. 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 No, if so, are they

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

or of the "H.R." type - State how the cables are supported or protected Forward main clipped to solid

plate along side of fore and aft gangway and protected. Engine Room wiring clipped

to perforated iron plate. Lead covered cables clipped to wood grounds in

accommodation.

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes. 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.



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

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ... ..	2	Sunduland Forge.	75	110	682	500	Diesel	Ruston Hornsby. 2758732
	1	Sunduland Forge.	30.	110	243	500	Steam	Sunduland Forge. 41275
		41272 & 3.						
EMERGENCY ... ROTARY TRANSFORMER								

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. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..	75	2	37/103	682 ✓	816	90	V.b.	L.b. + B.
" " EQUALISER ... ..	75	1	37/103	341 ✓	408	45	V.b.	L.b. + B.
	75	2	37/103	682 ✓	816	64	V.b.	L.b. + B.
		1	37/103	341 ✓	408	32	V.b.	L.b. + B.
	30	1	37/083	273 ✓	314	58	V.b.	L.b. + B.
		1	37/083	137 ✓	314	29	V.b.	L.b. + B.
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR...								

DESCRIPTION.								
Main switch board to Shaw Supply.	1	37/083	200	314	100	V.b.	L.b. + B.	
Main switch board to Refrigertry. S.B. 'F'	1	19/064	79	143	240	V.b.	L.b. A. + B.	
Main switch board to Popo Deck Stbd. S.B. 'C'	1	19/052	110	90	90	V.b.	L.b. A. + B.	
S.B. 'C' to Gally Prop Deck Aft. D.B. '61'	1	4/044	149	45	120	V.b.	L.b. + B.	
S.B. 'C' to Passage Pop Deck Stbd. D.B. 'C'	1	4/044	72	45	120	V.b.	L.b. + B.	
Main switch board to Upper Deck Stbd. S.B. 'K'	1	19/052	52	110	180	V.b.	L.b. A. + B.	
S.B. 'K' to Popo Deck Aft Porting D.B. 'K1'	1	4/036	4	30	180	V.b.	L.b. + B.	
S.B. 'K' to Popo Deck Port Passage D.B. 'K2'	1	4/036	10	30	140	V.b.	L.b. + B.	
S.B. 'K' to Popo Deck Stbd Passage D.B. 'K3'	1	4/036	10	30	64	V.b.	L.b. + B.	
S.B. 'K' to Upper Deck Port Passage D.B. 'K4'	1	4/036	14	30	132	V.b.	L.b. + B.	
S.B. 'K' to Upper Deck Stbd Passage D.B. 'K5'	1	4/036	14	30	10	V.b.	L.b. + B.	

[illegible][illegible]



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 Contractors. Date

#### COMPASSES.

Have the compasses been adjusted under working conditions.

Builder's Signature. Date

Have the foregoing descriptions and schedules been verified and found correct.

Is this installation a duplicate of a previous case. If so, state name of vessel.

Plans. Are approved plans forwarded herewith. If not, state date of approval.

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith.

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

#### 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. or sq. mm.	In the Circuit.	Rule.			
Main Switchboard to Pop Deck Sld. S.B.'D'	1	19/064	122	143	90	Vb.	L.b.A. + B.
Main Switchboard to Eng. Rm. Power Panel.	1	19/083	228	202	60	Vb.	L.b.A. + B. Working Lead 17amps.
Main Switchboard to Eng. Rm. S.B.'S'	1	7/064	40	80	60	Vb.	L.b.A. + B.
S.B.'S' to Engine Room Port. D.B.'E1'	1	7/036	10	30	60	Vb.	L.b.A. + B.
S.B.'S' to Engine Room Sld. D.B.'S2'	1	7/036	10	30	60	Vb.	L.b.A. + B.
S.B.'S' to Boiler Room. D.B.'S3'	1	7/036	10	30	120	Vb.	L.b.A. + B.
S.B.'S' to Kettle in Engine Room.	1	7/036	10	30	60	Vb.	L.b.A. + B.
Main Switchboard to Midships Section Panel.	2	37/053	302	314	420	Vb.	L.b.A. + B.
Main Switchboard to Stern Supply.	1	37/083	200	314	100	Vb.	L.b. + B.
Midships S.P. to Navigating Bridge S.B.'A'	1	7/036	19	30	160	Vb.	L.b. + B.
S.B.'A' to Navigation C.O. Switch	1	3/036	4	10	15	V.R.	L.b. + B.
Alternative Supply to Navigation C.O. Switch	1	3/036	4	10	15	V.R.	L.b. + B.
C.O. Switch to Navigation Indicator	1	3/036	4	10	5	V.R.	L.b. + B.
S.B.'A' to Gyro Compass.	1	7/036	15	30	20	Vb.	L.b. + B.
Midships S.P. to Bridge Deck S.B.'E'	1	7/052	29	60	15	Vb.	L.b. + B.
S.B.'E' to Bridge D.B.'E1'	1	7/036	9	30	30	Vb.	L.b. + B.
S.B.'E' to Whulhouse. D.B.'E2'	1	7/036	7	30	180	Vb.	L.b. + B.
Midships S.P. to Upper Bridge Deck S.B.'L'	1	7/052	47	60	80	Vb.	L.b. + B.
S.B.'L' to Whulhouse D.B.'L1'	1	7/036	5	30	180	Vb.	L.b. + B.
S.B.'L' to Navigating Bridge D.B.'L2'	1	7/036	10	30	80	Vb.	L.b. + B.
S.B.'L' to Upper Bridge D.B.'L3'	1	7/036	22	30	6	Vb.	L.b. + B.
D.B.'L3' to Lower Whulhouse.	1	3/036	2	10	16	V.R.	L.b. + B.
S.B.'L' to Whulhouse Kettle	1	7/036	10	30	120	Vb.	L.b. + B.
Midships S.P. to Bridge Deck S.B.'H'	1	7/064	45	80	15	Vb.	L.b. + B.
S.B.'H' to Bridge Deck Port. D.B.'H1'	1	7/036	16	30	60	Vb.	L.b. + B.
S.B.'H' to Bridge Deck Sld. D.B.'H2'	1	7/036	18	30	60	Vb.	L.b. + B.

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Boat Winch Lift	2	7.5	1	7/064	60	80	120	Vb.	L.b. + B.
Thrust Tank Boat Deck.	2	2.0	1	7/044	17	45	80	Vb.	L.b. + B.
Galley Exhaust Fans.	2	0.5	1	0.002	5	5	70	Vb.	L.b. + B.
Galley Blowers.	1	1	1	0.002	2.6	5	50	Vb.	L.b. + B.
Trunk Pumps.	2	1.25	1	7/036	12	30	50	Vb.	L.b. + B.
Exhaust Fan.	1	0.75	1	3/036	9	10	12	Vb.	L.b. + B.
Rising Compressors.	2	4.0	1	7/064	35	80	40	Vb.	L.b. + B.
Rising Water Pump.	1	1	1	3/036	10	10	120	Vb.	L.b. + B.
Priming Pump.	1	1.5	1	7/036	13.5	24	60	V.R.	L.b.A. + B.
Crane	1	3.0	1	7/044	22	45	120	Vb.	L.b.A. + B.
Lifter	1	3.5	1	7/064	24.5	80	50	Vb.	L.b.A. + B.
Grinder	1	2.0	1	7/044	17	45	48	Vb.	L.b.A. + B.
Purifiers	3	3.0	1	7/044	22	45	110	Vb.	L.b.A. + B.
Engine Room Vent Fans.	2	1.5	1	7/044	12.4	45	120	Vb.	L.b.A. + B.
S.H. Cooking Pump.	1	2.0	1	7/044	15	45	50	Vb.	L.b.A. + B.
Clarifier.	1	7.0	1	7/064	60	80	100	Vb.	L.b.A. + B.
Pumpkin	1	7.0	1	7/064	60	80	100	Vb.	L.b.A. + B.
Forced Draught Fan.	1	7.0	1	7/064	60	80	90	Vb.	L.b.A. + B.
Thrust Tanks Midships	2	2.0	1	7/052	17	60	80	Vb.	L.b.A. + B.
Boat Winches.	2	7.5	1	7/064	60	80	80	Vb.	L.b.A. + B.

Total Capacity of Generators. Kilowatts.

The amount of Fee ... £ : : When applied for, 10. :  
When received, 10. :  
Travelling Expenses (if any) £ : : :  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute. Fri. 10 AUG 1951

Assigned.



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.

CAMPBELL & ISHERWOOD, LTD.

PER

*L. Mearns*

Electrical Contractors.

Date *Jul. 11<sup>th</sup> 1951*

#### COMPASSES.

Have the compasses been adjusted under working conditions.

*YES.*

FOR SMITH'S DOCK CO. LTD.

*C. E. Hauls*

Builder's Signature.

Date *13-7-51.*

SHIPYARD MANAGER.

Have the foregoing descriptions and schedules been verified and found correct.

*Yes.*

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 sea services and generators forwarded herewith.

*Yes.*

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

*The electrical equipment on this vessel has been installed under special survey and the arrangements are in accordance with or equivalent to those shown on the approved plans, the Secretary's letters and the Rules for Electrical Equipment.*

*The materials used are of good quality and the workmanship is good.*

*On completion the equipment was operated under working conditions, the various protective devices were adjusted and operated, and the insulation resistance of all circuits measured and found good.*

*This installation is in my opinion suitable for a classed vessel intended for the carriage of petroleum in bulk.*

Special Notations: *D.F., E.S.D., Gyro C and Radar.*

Note: *The "Nursfayle" Emergency lighting panel is to be fitted at the first available opportunity.*

*Noted *sm* 3/8/50*

Total Capacity of Generators *180* ✓ Kilowatts.

The amount of Fee ...

£ *69* : -

When applied for,

*21: 7: 1951*

When received,

*19*

Travelling Expenses (if any) £

*Am. Huls.*  
Surveyor to Lloyd's Register of Shipping.

**FRI. 10 AUG 1951**

Committee's Minute

Assigned

*See P.E. mch. rpt.*