

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 6 JUL 1951

Date of writing Report 26.6.51 19 When handed in at Local Office 19 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 4.1.51 Last Survey 23.6.51 19  
Reg. Book. (No. of Visits 10)91180 on the m.v. "CALLISTO" Tons { Gross 5844  
Net 3373

Built at Sunderland By whom built Short Bros. Ltd Yard No. 506 When built 1951

Owners Hudig &amp; Veder N.V. Port belonging to Rotterdam, Netherland

Installation fitted by Sunderland Forge &amp; Engineering Co. Ltd When fitted 1951

Is vessel equipped for carrying Petroleum in bulk no Is vessel equipped with D.F. yes E.S.D. yes Gy.C. yes Sub. Stg. no Radar yes

Plans, have they been submitted and approved yes System of Distribution 2-wire ins. Voltage of Lighting 110

Heating 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 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

Position of Generators engine room floor level, on raised stools, starboard side.

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 on angle iron framework

adjacent to generators.

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 Ebony "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 construction as per Rule, including locking of screws and nuts yes Description of Main Switchgear

for each generator and arrangement of equaliser switches a double-pole, air-break circuit-breaker fitted with

O/L tripping devices on each pole.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit a double-pole knife switch and fuses.

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 are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection - Earth Testing, state means provided E.lamps

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

make of fuses G.E.C. are all fuses labelled yes If circuit breakers are provided for the generators, at what

overload do they operate 15% 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 -

state maximum fall of pressure between bus bars and any point under maximum load less than 6 v. 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 - or run in conduit yes

or of the "HR" type - State how the cables are supported or protected Main feeders: V.I.R. cables in heavy

guage steel conduit run through 'tweendecks for and aft, fastened to underside of main deck.

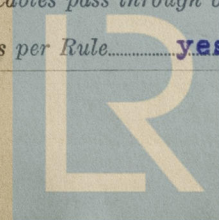
In accommodation, L.C. cables on the surface and protected where required by wood or metal

guards.

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





[illegible]

MOTOR CABLES.									
ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Oil Purifiers	2	2.5	I	7/.036	23✓	24	2/50	V.I.R.	in pipe
Priming Pump Motor	I	1.5	I	7/.036	15✓	24	40	"	"
Hydrofor Motor	I	0.75	I	7/.029	8✓	15	140	"	"
Workshop Motors	2	1.5	I	7/.036	15✓	24	2/40	"	"
" "	I	I	I	7/.036	10✓	24	160	"	"
Boiler Room Fan Motor	I	3	I	7/.044	20✓	31	100	"	"
Crane Motor	I	3	I	7/.044	20✓	31	160	"	"
F.W.Pump Motor	I	1.5	I	7/.036	15✓	24	60	"	"
No.1. Vent Fan	I	2.5	I	7/.044	23✓	31	52	"	L.C.
" 2. " "	I	2.5	I	7/.044	23✓	31	240	"	"
" 3. " "	I	2.5	I	7/.044	23✓	31	204	"	"
Galley Exhaust Fan	I	0.6	I	3/.036	6✓	10	60	"	V.I.R. in pipe
Fridge Exhaust Fan	I	0.25	I	3/.036	3✓	10	24	"	"
No. 4 Vent Fan	I	2.55	I	7/.064	23✓	46	440	"	"
Fridge Compressor	I	3	I	7/.064	26✓	46	20	"	"
" Circ. Pump	I	I	I	7/.036	10✓	24	220	"	"
Mono Pump Motor	I	1.5	I	7/.036	15✓	24	36	"	"
Potato Peeler	I	0.5	I	3/.036	5✓	10	36	"	"
Saloon Frig.	I	0.5	I	3/.036	5✓	10	28	"	L.C.



*All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.*

P. PRO THE SUNDERLAND FORGE & ENGINEERING CO. LTD

### *Electrical Contractors.*

Date.

*Have the compasses been adjusted under working conditions.*

yes

FOR SHORT BROTHERS, LIMITED

*Builder's Signature.*

Date.

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

yes

Is this installation a duplicate of a previous case.....no

no

If so, state name of vessel.....

Plans. Are approved plans forwarded herewith.....yes

**yes**

*If not, state date of approval.*

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

yes

General Remarks. (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.) The cables feeding Section Panels 'G' and 'H' are of size 19/.052 V.I.R. instead of size 7/.064 V.C. as shown on the approved plans. As the loading in both cases has been checked and the resulting voltage drop in the V.I.R. cables is within rule requirements, no exception is taken here to the deviation from plan.

The electrical equipment of this vessel has been installed under special survey, complies with the "Rules For Electrical Equipment" and, with the above qualification, the arrangements in general principle accord with those shown on the approved plans. The materials and workmanship are good and satisfactory trials were witnessed at completion and the insulation of all circuits was found good.

This equipment is in my opinion suitable for a vessel bearing the Society's class.

Noted encl 27/7/51

Total Capacity of Generators  $(2 \times 45) \quad 90$  ✓ Kilowatts.

The amount of Fee ... £ 55: 10 : ( When applied for,  
JUL - 4 1951

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When received,

Travelling Expenses (if any) £ : : 19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute. TUES. 31 JUL 1951

Assigned See R. E. Mueby rpt.