

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 10 OCT 1939

Date of writing Report 30-9-1939 When handed in at Local Office 6/10/1939 Port of Newcastle-on-Tyne

No. in Survey held at Newcastle (Wallsend) Date, First Survey 16 Aug. Last Survey 2 Oct 1939
Reg. Book. (Number of Visits 11)35032 on the M.V. THIARA Tons { Gross 10330
Net

Built at Newcastle (Wallsend) By whom built Swan Hunter & Higham Richmond Card No. 1563 When built 1939

Owners Anglo-Saxon Petroleum Co. Port belonging to LONDON.

Electrical Installation fitted by Sunderland Forge & Eng'g Co. Contract No. When fitted 1939

Is vessel fitted for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. Sub.Sig. -

Have plans been submitted and approved YES System of Distribution TWO WIRE Voltage of supply for Lighting 110

Heating - Power 110 Direct or Alternating Current, Lighting Direct Power Direct If Alternating Current state frequency Prime Movers,

has the governing been tested and found efficient when the whole 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

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 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 Engine room starboard side

, 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 Engine room starboard side

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 INTERM, 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

Double pole Knife switches and double pole fuses.

and for each outgoing circuit Double pole changeover Knife switches and double pole

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 is the ammeter connected on the pole opposite to the

equaliser connection - Earth Testing, state means provided lamps coupled to earth via switches and fuses

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	1	20	110	182	400	Steam engine		
	1	20	110	182	400	Diesel		Over 150°F
EMERGENCY ...								
ROTARY TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return loss).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Each.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rate.			
MAIN GENERATORS	20	1	19/083	182	191	80	V.C	L.C.A
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

[illegible][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.

H. Sunderland & Sons Ltd.
H. J. Furney

Electrical Engineers.

Date *2-10-1939*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *250' from generators, 30' from vent. motor*
Minimum distance between electric generators or motors and steering compass *260' from generators, 40' from vent. motor*

The nearest cables to the compasses are as follows:—

A cable carrying *.4* Ampères *inside* feet from standard compass *—* feet from steering compass.
A cable carrying *.4* Ampères *inside* feet from standard compass *—* feet from steering compass.
A cable carrying *5* Ampères *5* feet from standard compass *15* 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 *every* course in the case of the standard compass, and *Nil* degrees on *every* course in the case of the steering compass.

For *W. Buckie*
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Builder's Signature.

Date *4.10.39.*

Is this installation a duplicate of a previous case *YES* If so, state name of vessel *TORINIA*

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

*The electrical equipment has been installed under
special survey. The quality of workmanship and
the materials used are good. The insulation resistance
of each circuit was measured. The governing and
compounding of the generator set was tested, and
found satisfactory. In my opinion the electrical
equipment is suitable for a classed vessel.*

Noted
L. J.
13/10/39

Total Capacity of Generators *40* Kilowatts.

The amount of Fee ... £ *25 : 0* :

When applied for *19 OCT 1939*
.....19.....

Travelling Expenses (if any) £ : :

When received.
16/10/39 *16/10*

W. B. Bowen

Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FR 13 OCT 1939*

Assigned *See Note L E 97941*