

# REPORT ON ELECTRICAL EQUIPMENT

[OTHER THAN FOR THE PROPULSION OF THE VESSEL]

Received at London Office

Date of writing Report 13/9/ 1948 When handed in at Local Office 13/9/ 1948 Port of SYDNEY N.S.W.

No. in Reg. Book Survey held at PORT KEMBLA N.S.W. Date: First Survey 24/10/46 Last Survey 9/7/48 19  
(Number of Visits 16)

on the TWIN SCREW MOTOR LAUNCH "PLYM" Tons { Gross 74  
Net 57

Built at PORT KEMBLA N.S.W. By whom built A.E. GOODWIN LTD. Yard No. 78 When built 1948

Owners ANGLO SAXON PETROLEUM CO. LTD. Port belonging to SYDNEY N.S.W.

Electrical Installation fitted by BRAYBON BROS. PTY. LTD. SYDNEY N.S.W. Contract No. When fitted 1948

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

Have plans been submitted and approved Yes System of Distribution Two wire parallel Voltage of supply for Lighting 32

Heating  Power 32 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current, state frequency  Prime Movers  
ENGINE STARTING MOTORS 34 VOLT.

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 SHUNT, are they level compounded under working conditions

if not compound wound, state distance between generators 6 feet and from switchboard AUX. SET 3 FEET  
STARBOARD ENG. 3 "  
PORT ENG. 8 " Where more than one generator is fitted, are they

arranged to run in parallel No, are shunt field regulators provided MAIN ENGS. AUTO; the compound winding connected to the negative or positive pole  
STUART TURNER SET. MANUAL.

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  and the results found as per rule  Are the lubricating arrangements and the construction

of the generators as per rule DRIVEN Position of Generators MAIN ENGINE GENERATORS ON PORT SIDE OF ENGINES. STUART TURNER

SET STARBOARD FORD CORNER E.R. 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 ON FORWARD E.R. BULKHEAD IN LINE WITH STARBOARD

## MAIN ENGINE.

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 ZELEMITE, if of synthetic 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 arrangements of equaliser switches ALL KNIFE SWITCHES

EXCEPT AUTO CUT OUTS ON MAIN ENGINE GENERATORS.

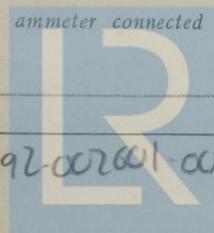
and for each outgoing circuit D.P. TUMBLER SWITCHES.

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

ammeters TWO 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.

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Foundation

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, are the reversed current protection devices connected on the pole opposite to the equaliser connection AUTO CUT OUTS have they been tested under working conditions YES. 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 ✓ state maximum fall of pressure between bus bars and any point under maximum load 1.12 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 exposed ends ✓ with insulating compound ✓ or waterproof insulating tape ✓. 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 cables laid under machines or floorplates YES, if so, are they adequately protected YES. Are cables in machinery spaces, galleys, laundries, etc., lead covered YES or run in conduit ✓. State how the cables are supported and protected CLIPPED TO WOODEN BATTENS, WITH METAL COVERS WHERE EXPOSED TO RISK OF DAMAGE.

Are all lead sheaths, armouring and conduits effectually bonded and earthed YES. Refrigerated chambers, are the cables and fittings as per Rule ✓. 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 and with what material LEAD. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule ✓. Emergency Supply, state position ✓ and method of control ✓.

Navigation Lamps, are they separately wired YES controlled by separate ✓. Are the switches and fuses in a position accessible only to the officers on watch YES, is an automatic indicator fitted NO. Secondary Batteries, are they constructed and fitted as per Rule YES, are they adequately ventilated YES. Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof YES. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present NO, if so, how are they protected ✓.

are all fittings suitably ventilated YES and where are the controlling switches fitted ✓. are all fittings and accessories constructed and installed as per Rule YES. Searchlight Lamps, No. of ✓, whether fixed or portable ✓, are their fittings as per Rule ✓. Heating and Cooking, is the general construction as per Rule ✓. Motors, are all motors constructed and are the frames effectually earthed ✓, are beaters in the accommodation of the convection type ✓ and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil ✓, if situated near unprotected combustible material, state minimum distance from same horizontally ✓ and vertically ✓. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing ✓. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule ✓. Control Gear and Resistances, are they constructed and fitted as per Rule YES. Lighting Conductors, where required are they fitted as per Rule ✓. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with ✓, are all fuses of the cartridge type ✓. are they of an approved type ✓. If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type ✓. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule ✓, are they suitably stored in dry situations ✓. Insulation Tests, has the insulation resistance of all circuits and apparatus been megger tested and found satisfactory YES.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR	No. of	RATED AT			Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Amperes			Fuel Used	Flash Point of Fuel
MAIN	2	0.288	24	12	VARIOUS	MAIN ENGINES	DISTILLATE 215° F	
AUXILIARY	1	1	32/42	31/24	1500	STUART TURNER 3HP 3 CYCLE ENGINE	PETROL	
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION	KILOWATTS	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (Feet plus return feet)	INSULATED WITH	HOW PROTECTED
		No. in Parallel For Pole	Sectional Area or No. and Dia. of Strands sq. ins. or sq. mm.	In the Circuit	Rule			
MAIN GENERATOR	0.288	1	7/0.044	12	31	12 to batteries V.I.R.	LEAD ARMOUR SHEATHED	
" " EQUALISER						60 to SW Bd.	AND W.T. CONDUIT.	
AUXILIARY GENERATOR	1	1	7/0.044	29.4	31	"	LEAD ARMOUR SHEATHED.	
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION	KILOWATTS	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (Feet plus return feet)	INSULATED WITH	HOW PROTECTED
		No. in Parallel For Pole	Sectional Area or No. and Dia. of Strands sq. ins. or sq. mm.	In the Circuit	Rule			
AUX. SWITCHBOARDS AND SECTION BOARDS								
DIST. BOARD PORT SIDE, RET ACCOMMODATION		1	3/0.036	9.3	10	38	V.I.R.	LEAD ALLOY SHEATHED.
" " STARBD. " " "		1	1/0.044	1.4	5	30	"	" " "
" " WITH MAIN SWITCHBOARD IN E.R.		1	1/0.044	3.3	5	6	"	" " "
" " IN WHEELHOUSE (LIGHTS)		1	1/0.044	2.4	5	26	"	" " "
" " " " (NAVIG.)		1	1/0.044	3.5	5	26	"	" " "
" " IN SALOON		1	1/0.044	3.8	5	36	"	" " "
" " IN FORD CREW SPACE		1	1/0.044	4.2	5	48	"	" " "

LIGHTING AND HEATING, ETC., CABLES

DESCRIPTION	KILOWATTS	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (Feet plus return feet)	INSULATED WITH	HOW PROTECTED
		No. in Parallel For Pole	Sectional Area or No. and Dia. of Strands sq. ins. or sq. mm.	In the Circuit	Rule			
WIRELESS								
NAVIGATION LIGHTS		1	1/0.044	0.8	5	60		LEAD ALLOY SHEATHED.
LIGHTING AND HEATING		1	1/0.044	0.5	5	120		" " "

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (Feet plus return feet)	INSULATED WITH	HOW PROTECTED
			No. in Parallel For Pole	Sectional Area or No. and Dia. of Strands sq. ins. or sq. mm.	In the Circuit	Rule			
STUART TURNER PORTABLE 1" BILGE PUMP.	1		1	3/0.036	4	10		V.I.R.	TOUGH RUBBER SHEATHING.

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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.

BRAYBON BROS. PTY. LTD.

Per W. Braybon

Electrical Engineers.

Date 13/9/48.

COMPASSES.

Minimum distance between electric generators or motors and standard compass.....

Minimum distance between electric generators or motors and steering compass.....

The nearest cables to the compasses are as follows:—

A cable carrying ..... Amperes ..... feet from standard compass ..... feet from steering compass.

A cable carrying ..... Amperes ..... feet from standard compass ..... feet from steering compass.

A cable carrying ..... Amperes ..... feet from standard compass ..... feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power.....

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted.....

The maximum deviation due to electric currents was found to be..... degrees on..... course in the case of the standard compass, and..... degrees on..... 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..... ✓

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

*This electrical equipment has been installed under Special Survey in accordance with the requirements of the Rules and in accordance with the plans submitted. The materials and workmanship are of good quality. The insulation resistance tests and trials have been carried out in accordance with Rule requirements with good results and in our opinion the vessel, so far as electrical equipment is concerned, is eligible to be classed.*

*J.S.  
17.1.49.*

Total Capacity of Generators 1.576 Kilowatts.

The amount of Fee .. .. £ 6:0 : { When applied for, 15/7/48  
Travelling Expenses (if any) £ : : { When received, .. .. 19

A. Gervard & Co. B.P. Fielden  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 21 JAN 1949

Assigned See minute on Rpt. 46.

100-1145-1, 6, 015. TRANSFER. (PRINTED IN AUSTRALIA)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

