

Rpt. 13.

## REPORT ON ELECTRICAL EQUIPMENT.

No. 18696.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 12. 3. 19 49. When handed in at Local Office 16. 3. 19 49. Received at London Office 17. 3. 19 49.  
No. in Survey held at Middlesbrough. Date, First Survey 12. 10. 48. Last Survey 2. 3. 19 49.  
Reg. Book. (No. of Visits 15)

91096 on the M.V. "BRITISH YEOMAN".  
Built at Haverton Hill-on-Tees By whom built Furness S. B. Co. Ltd. Yard No. 412. When built 1948.  
Owners British Tanker Co. Ltd.. Port belonging to London.

Installation fitted by Sunduland Forge & Engineering Co. Ltd. When fitted 1949.  
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. No. Radar. Yes.

Plans, have they been submitted and approved. Yes. System of Distribution Two wire insulated 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. 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 Inboard and outboard, port side forward, on E.R. starting platform level 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 raised platform above generator (inboard) facing aft and forward of main engine. 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 finish 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 682 Ampere Triple Pole Air Break Circuit Breaker with Reverse Current Trip and Overload Trips with Time lags on two poles.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Double Pole Double Throw and Double Pole Single Throw Quick Break Knife Switches all three Double Pole fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes. Instruments on main switchboard 2.  
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 'E' 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 H.R.C. Dinamo '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. 15%.

Are Boxes, Section Boards and Distribution Boards, is the construction as per Rule. Yes. are they insulated and protected as per Rule. Yes. if otherwise than as per Rule are they of an Approved Type. -

the maximum fall of pressure between bus bars and any point under maximum load 6.6v. 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, 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. -

State how the cables are supported or protected Forward main clipped to steel structure supported under fore and aft gangway. Generators are clipped to steel plates. Lead covered cables in accommodation leaded to wood grounds.

Are all cables passing through decks and watertight heads provided with deck tubes or watertight glands. Yes. where unarmoured cables pass through beams, etc., are the holes adequately bushed. Yes - Lead. Refrigerated chambers, are the cables and fittings as per Rule.



17 MAR 1949

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. *Yes*. Emergency Supply, state position *Yes*.

Navigation Lamps, are they separately wired *Yes*. controlled by separate double pole switches and fuses. *Yes*. Are the switches and fuses in a position accessible only to the officers on watch *Yes*. Is an automatic indicator fitted *Yes*. Is an alternative supply provided *Yes*.

Secondary Batteries, are they constructed and fitted as per Rule *Yes*. are they adequately ventilated *Yes*. state battery capacity in ampere hours *35* 'NIFE'.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof *Yes*.

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present *Yes*. if so, how are they protected *"Wigan" Flameproof fittings*.

and where are the controlling switches fitted *Officers Accommodation enroute*. Are all fittings suitably ventilated *Yes*.

Searchlight Lamps, No. of *—*, whether fixed or portable *—*, are they of the carbon arc or of the filament type *—*.

Heating and Cooking, is the general construction as per Rule *Yes*. are the frames effectually earthed *Yes*. are heaters in the accommodation of the convection type *—*. Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil *Yes*.

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment *Yes*. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and *Yes*.

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule *Yes*.

Control Gear and Resistances, are they constructed and fitted as per Rule *Yes*. Lightning Conductors, where required are they fitted as per Rule *Yes*.

Ships carrying Oil having a Flash Point less than 450° F. *Yes*. Are all the special requirements of the Rules for such ships been complied with *Yes*. Are all fuses of an Approved Cartridge Type *Yes*. Are the fittings for pump rooms, forepeak tank, etc., in accordance with the special requirements for such ships *Yes*. Are the cables lead covered as per Rule *Yes*.

E.S.D., if fitted state maker *Wigan*, location of transmitter *Eng. Room Double Bottom* and receiver *Eng. Room Double Bottom*.

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations *Yes*.

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

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR, No. of, MAKER, Kilowatts, Amperes, Revs. per Min., TYPE, MAKE, MAIN GENERATOR *Wigan*, 75, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

EMERGENCY ROTARY TRANSFORMER, 150, 110, 682, 500, Steam, *Wigan*.

## LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES. In the Circuit.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Wireless.	1	19/064	30	143	690	V.B. L.B.A. + B.
Navigation Indicator 'N'.	1	19/064	30	143	690	V.B. L.B.A. + B.
Main switchboard to Port Pass. Up. Ek. DBA	1	19/064	30	143	690	V.B. L.B.A. + B.
Main switchboard to Port Pass. Up. Ek. DBB	1	19/064	30	143	690	V.B. L.B.A. + B.
Sub switchboard to No. 1. Bdg. Ek. DBA	1	19/064	30	143	690	V.B. L.B.A. + B.
Sub switchboard to No. 1. Bdg. Ek. DBB	1	19/064	30	143	690	V.B. L.B.A. + B.
Sub switchboard to No. 1. Bdg. Ek. DBA	1	19/064	30	143	690	V.B. L.B.A. + B.
Sub switchboard to No. 1. Bdg. Ek. DBB	1	19/064	30	143	690	V.B. L.B.A. + B.
Main switchboard to Engine Room DB 'A'	1	19/064	30	143	690	V.B. L.B.A. + B.
Main switchboard to Engine Room DB 'B'	1	19/064	30	143	690	V.B. L.B.A. + B.
Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'	1	19/064	30	143	690	V.B. L.B.A. + B.
Main switchboard to Workshop. S.B. 'J'	1	19/064	30	143	690	V.B. L.B.A. + B.
Sub switchboard to Floodlight Control Box.	1	19/064	30	143	690	V.B. L.B.A. + B.
Floodlight Control Box to Thrust.	1	19/064	30	143	690	V.B. L.B.A. + B.
Floodlight Control Box to Main mast.	1	19/064	30	143	690	V.B. L.B.A. + B.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Main switchboard to Engine Room DB 'A'

Main switchboard to Engine Room DB 'B'

Sub Box 'A' to 1st. Eng. Prop. Dk. DB 'A'

Main switchboard to Workshop. S.B. 'J'

Sub switchboard to Floodlight Control Box.

Floodlight Control Box to Thrust.

Floodlight Control Box to Main mast.

Wireless.

Navigation Indicator 'N'.

Main switchboard to Port Pass. Up. Ek. DBA

Main switchboard to Port Pass. Up. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB

Sub switchboard to No. 1. Bdg. Ek. DBA

Sub switchboard to No. 1. Bdg. Ek. DBB



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.

W. B. SHIPBUILDING CO. LIMITED

Carrollman,

Electrical Contractor

Date 14/3/49.

#### COMPASSES.

Have the compasses been adjusted under working conditions.

Yes.  
For Thomas Shipbuilding Co. Ltd.  
W. B. Carrollman  
Director

Builder's Signature.

Date 14.3.49.

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 - generators.

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

The electrical equipment of this vessel has been installed under special survey and the arrangement is in accordance with or equivalent to those shown on the approved plans, 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.

9.5  
5.4.49

Total Capacity of Generators 150 Kilowatts.

The amount of Fee ... £ 62 : 10 :

When applied for,  
16.3. 19.49

When received,

Travelling Expenses (if any) £ :

19.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 8 APR 1949

Assigned

See F.E. mch. rpt.