

REPORT ON ELECTRICAL EQUIPMENT.

(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. Port of Middlesbrough
Reg. Book. (No. of Visits 15)

91096 on the M.V. "BRITISH YEOMAN" Tons { Gross 8141.
Net 5038.

Built at Howitzer 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 Sunderland 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.B. 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 flat 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 thro 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 '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%.

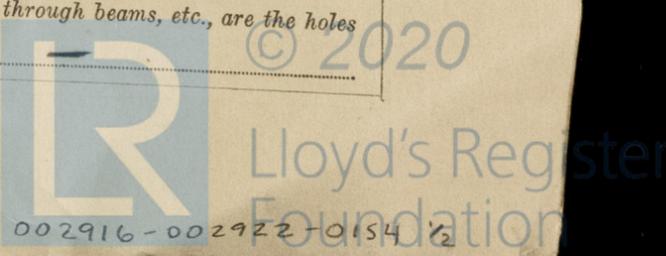
Control Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes. are they insulated and protected as per Rule Yes. if otherwise than as per Rule are they of an Approved Type -

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, or 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 -

of the "HR" type. State how the cables are supported or protected Forward main clipped to steel structure supported under fore and aft gangway. Generator cables clipped to tray 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 -



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

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...

Searchlight Lamps, No. of —, whether fixed or portable —, are they of the carbon arc or of the filament type —... and where are the controlling switches fitted Officers Accommodation in bulkhead... Are all fittings suitably ventilated Yes...

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 of standard type fitted as per Rule Yes... Lighting Conductors, where required are they fitted as per Rule Yes... Ships carrying Oil having a Flash Point less than 450° F. Yes... 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, between deck spaces, 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 W. & A. Electric, name of instrument 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. Table with columns: DESCRIPTION OF GENERATOR, No. of Generators, Kilo-watts per Generator, Amps, Revs. per Min., TYPE, MAKE. Includes MAIN GENERATOR and EMERGENCY ROTARY TRANSFORMER.

GENERATOR CABLES. Table with columns: DESCRIPTION, KILOWATTS, CONDUCTORS (No. in Parallel, Sectional Area), MAXIMUM CURRENT (In the Circuit, Rule), APPROX. LENGTH (lead plus return feet), INSULATION, PROTECTIVE COVERING. Includes MAIN GENERATOR and EMERGENCY GENERATOR.

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.). Table with columns: DESCRIPTION, No. in Parallel, Sectional Area, MAXIMUM CURRENT, APPROX. LENGTH, INSULATION, PROTECTIVE COVERING. Includes Main switchboard to 1st Deck Prop. S.B./A, Main switchboard to 1st Deck Prop. S.B./B, etc.

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

Table with columns: DESCRIPTION, No. in Parallel, Sectional Area, MAXIMUM CURRENT (In the Circuit, Rule), APPROX. LENGTH (lead plus return feet), INSULATION, PROTECTIVE COVERING. Includes Wireless, Navigation Indicators, Main switchboard to 1st Deck Prop. S.B./A, etc.

MOTOR CABLES. Table with columns: ALL IMPORTANT MOTORS TO BE ENUMERATED, No., B.H.P., No. of Cables, B.H.P. per Cable, APPROX. LENGTH (lead plus return feet), INSULATION, PROTECTIVE COVERING. Includes Boat Hoist, Pumping Pump, Laths, etc.

Forward main supplied to... cables supported with fore and aft crossways. Generator... cables supported so they fall in accommodation... cables in accommodation... cables in accommodation.

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. Butterfield Builder's Signature Date *14.3.49*
Director

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.

J.S.
5.4.49

Total Capacity of Generators *150* Kilowatts.

The amount of Fee ... £ *62 : 10* :
 When applied for, *16.3. 19.49*
 When received, *19*
 Travelling Expenses (if any) £ : :

Wm. Hills
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 8 APR 1949*

Assigned *See F.E. mch. sph.*

2m. 4. 46. - Transfer. (MADE AND PRINTED IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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