

VED  
1951

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 122948  
AUG 1952

Received at London Office

Reporting Report 15781 1951 When handed in at Local Office 15781 1951 Port of London

Survey held at Bedford Date, First Survey 22 June Last Survey 26 July 1951  
Number of Visits 5

Single on the Twin Triple Quadruple Screw vessel S.S. BRITISH CROWN Tons Gross Net

Liverpool By whom built Cammell Laird & Co. Ltd Yard No. 1208 When built 1951

British Tanker Co Ltd Port belonging to

Made at Bedford By whom made W. Allen Sons & Co. Ltd Contract No. K2/85783 When made 1951

Made at " By whom made " Contract No. E2/85787 When made "

Engines 1 Engine Brake Horse Power 240 M.N. as per Rule 60 Total Capacity of Generators 150 Kilowatts

Intended for essential services Yes

ENGINES, &c.—Type of Engines Diesel 2 or 4 stroke cycle 4 Single or double acting Single

Working pressure in cylinders 750 lb/in<sup>2</sup> Diameter of cylinders 240 mm Length of stroke 300 mm No. of cylinders 6 No. of cranks 6

Indicated pressure 85.5 psi Firing order in cylinders 1-2-4-6-5-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282 mm

Clearance between each crank yes Moment of inertia of flywheel 105 lb ft<sup>2</sup> 4750 Revolutions per minute 600

Crank pin dia 1200 mm Weight 1780 lbs Means of ignition Compression Kind of fuel used

Shaft, dia. of journals as per Rule 132 mm as fitted 140 mm Crank pin dia 150 mm Crank Webs Mid. length breadth 204 mm Thickness parallel to axis shrunk Mid. length thickness 70 mm Thickness round eye-hole

Intermediate Shafts, diameter as per Rule as fitted General armature, moment of inertia 1490 lb ft<sup>2</sup>

Means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted

Exhaust cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Water Pumps, No. 1 Salt + Fresh Water or engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Operating Oil Pumps, No. and size One Rotary Gear Type

Compressors, No. No. of stages Diameters Stroke Driven by

Operating Air Pumps, No. Diameter Stroke Driven by

RECEIVERS:—Have they been made under Survey State No. of Report or Certificate

Receiver, which can be isolated, fitted with a safety valve as per Rule

Internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Operating Air Receivers, No. one Total cubic capacity 11.2 Cuft Internal diameter 2'-0" thickness 15/16" Working pressure by Rules 300 lb ft<sup>2</sup>

Welded or riveted longitudinal joint Lap Welded Material Steel Range of tensile strength 26/30 tons Working pressure by Rules

ELECTRIC GENERATORS:—Type A.C.

Voltage of supply 440 volts Full Load Current Amperes Direct or Alternating Current A.C.

Alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown off yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field yes

Terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced

Welded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes

Generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements

Generators are 100 kw. or over have they been built and tested under survey yes

Shafts of driven machinery other than generator

NS.—Are approved plans forwarded herewith for Shafting (If not, state date of approval) Receivers Separate Tanks

Torsional Vibration characteristics if applicable been approved 2-5-50 (1/6000) Armature shaft Drawing No. E/139305

RE GEAR Sport Gear supplied as per rule requirements

The foregoing is a correct description,

W.H. ALLEN, SONS & Co., Ltd. Manufacturer.

A. K. Clarke 26/7/51



Dates of Survey while building { During progress of work in shops - - ) 1951 June 22, 26, 27 July 25, 26  
 { During erection on board vessel - - )  
 Total No. of visits 5 (Perhaps)

Dates of Examination of principal parts—Cylinders 26-6-51 Covers 22-6-51 Pistons 26-6-51 Piston rods  
 Connecting rods 27-6-51 Crank and Flywheel shafts 26-6-51 Intermediate shafts

Crank shaft { Material Steel Tensile strength  
 Elongation Identification Marks LLOYDS E.B. 2368 5.12.50  
 Flywheel shaft, Material Identification Marks  
 Identification marks on Air Receivers 1) 51/500106 LLOYDS TEST 11.4.51 T.O.S HT. 60016 WP30016 N°EW 2644

Is this machinery duplicate of a previous case Yes If so, state name of vessel N°749 British Tanker G K2

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Diesel Generator has been constructed under special survey in accordance with the requirements of Rules; The steel was made at works approved by the Committee; The workmanship is good; on completion the Diesel Generator set was tested upon the bench under full and overload conditions with satisfactory results.

The Diesel Generator has been despatched to Cammel Laird for fit on board the vessel

This set has been properly installed in the vessel and tried full working conditions with satisfactory results.

L. P. ...  
 Liverpool 17/52.

Attached Bhm No. 7.2136. Not No. C.12661.

The amount of Fee ... £ 12 : 0 : 0 When applied for 15/21 1951  
 Travelling Expenses (if any) £ 1 : 3 : 6 When received 19

Committee's Minute  
 Assigned

R.W. Boomer  
 Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation

501,48-T. (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)