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REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 119859

Received at London Office 31 MAY 1950

Date of writing Report 16 FEB 1950 When handed in at Local Office 23 FEB 1950 Port of London

No. in Reg. Book Survey held at Bedford Date, First Survey 14 Oct 1949 Last Survey 20 JANUARY 1950 Number of Visits SEVEN

on the Single Twin Triple Quadruple Screw vessel M/V "BRITISH GENERAL" Tons Gross Net

Built at Haveron Hill By whom built Furness S. B. Co Ltd Yard No. 434 When built 1950

Owners British Tanker Co Ltd Port belonging to London

Oil Engines made at Bedford By whom made W.H. Allen, Sons & Co Ltd Contract No. K475236 When made 1950

Generators made at " By whom made " " & " Contract No. E475240 When made 1950

No. of Sets 2 Engine Brake Horse Power 132 M.N. as per Rule Total Capacity of Generators 75 Kilowatts

Is Set intended for essential services Yes

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

Maximum pressure in cylinders 750 psi Diameter of cylinders 240 mm Length of stroke 300 mm No. of cylinders 4 No. of cranks 4

Mean indicated pressure 86.6 psi Firing order in cylinders 1.4.3.2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282 mm

Is there a bearing between each crank Yes Moment of inertia of flywheel 9000 lb ft² Revolutions per minute 450

Flywheel dia 1200 mm Weight 3500 lbs Means of ignition Compression Kind of fuel used Pool Gas oil

Crank Shaft, dia. of journals 130.5 mm as per Rule 140 mm as fitted Crank pin dia 150 mm Crank Webs Mid. length breadth 204 mm Mid. length thickness 70 mm Thickness parallel to axis shrunk Thickness round eye hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia 354 lb ft²

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

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

Cooling Water Pumps, No. 1 Fresh water each engine + 1 salt water for 2 engines as the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One Rotary Gear type each engine

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

Scavenging Air Pumps, No. Diameter Stroke Driven by

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

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

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

Is there a drain arrangement fitted at the lowest part of each receiver

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

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. Two Total cubic capacity 10 cu ft Internal diameter 18 inches thickness 5/16 inches

Seamless, lap welded or riveted longitudinal joint Sealers Material Steel Range of tensile strength 26/30 Tons Working pressure by Rules 300 lbs

ELECTRIC GENERATORS:—Type Open Pressure of supply 110 volts Full Load Current 682 Amperes Direct or Alternating Current D.C.

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

Are all terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched yes

Are the lubricating arrangements of the generators as per Rule yes

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

If the generators are 100 kw. or over have they been built and tested under survey

Details of driven machinery other than generator

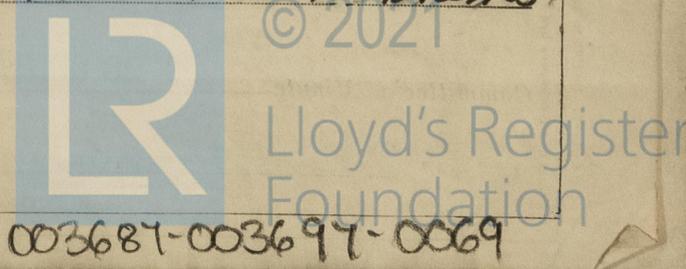
PLANS.—Are approved plans forwarded herewith for Shafting (1) not, state date of approval Receivers Separate Tanks

Have Torsional Vibration characteristics if applicable been approved 5 July 1948 at 2150 RPM Armature shaft Drawing No. E/137630

SPARE GEAR 3 Injectors + Nozzles, 3 inlet + 3 Exh Valves complete, 3 Relief + 3 Indicator Valves, Starting Valve, 2 Pistons, 3 sets Piston Rings, 2 Cyl Heads, 2 Liners, 2 sets Cyl Hd Studs, Big end Brg with Bolts 4 main Brg Bolts, 1 Fuel Pump, 2 Gudgeon pins 1 small end Brg, Fuel Injector Suction Pipes 1 set Arrowed Nuts/Bolts, Two Brush Holders + one set Brushes or Generator, 1 set spares for salt water pump + Motor

The foregoing is a correct description, W.H. ALLEN, SONS & Co., Ltd. Manufacturer.

A.H. Clarke 20.1.50.



10001 ON 199 20M

Dates of Survey while building: During progress of work in shops - - 1949: Oct 14, 21, Nov 22, 25, 29 (1950: Jan 17, 20)
During erection on board vessel - -
Total No. of visits: Seven (See above)

Dates of Examination of principal parts - Cylinders 29.11.49 Covers 14.10.49 21.10.49 Pistons 25.11.49 Piston rods ✓

Connecting rods 25.11.49 Crank and Flywheel shafts 22.11.49 Intermediate shafts ✓
Set A LLOYDS 1805.19.49 B.B. 22.11.49 (P)

Crank shaft: Material Steel Tensile strength 5218. LLOYDS. D.K.L. 1837 29.9.49 22.11.49 (P)
Elongation Identification Marks

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers: 81/480286 LLOYDS TEST T.D.S. H.T. 00016 W.P. 30016 20.6.49 H.292 ✓ H.293 ✓

Is this machinery duplicate of a previous case? If so, state name of vessel.

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

Note: The sets have been despatched to Lumen S.A. to be fitted on board the vessel.

These generator have been securely fitted aboard, tried out under working conditions & found satisfactory.

W. Stewart

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

The amount of Fee: 2 sets £ 13 : 4 : 0 When applied for 23 FEB 1950
Travelling Expenses (if any) £ : 19 : 1 When received 19

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

Committee's Minute: FRI 23 JUN 1950
Assigned: See F.E. weekly rpt.



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Foundation